



DECLARATION OF ORBIT COMMUNICATION LTD

Model "AL-7108" (C-Band)

I, Guy Naym, Director R&D Satcom Systems, hereby declare, that the following statements are true and correct:

1. Orbit Communication Ltd. Designs, develops and manufactures marine stabilized antenna systems for satellite communications at sea.
2. The Model "AL-7108" (C-Band) meets the shape of the off-axis EIRP spectral density mask provided for in 47 CFR Section 25.221.
3. Anyone using the Model "AL-7108" (C-Band) antenna will comply with U.S. Federal Communications Commission (FCC) off-axis EIRP spectral density limits provided that, the transmit power density at the antenna input is kept below -9.9 dBW/4KHz (0.102 Watts/4KHz) of occupied bandwidth (the worst case is at 6.4 GHz X-Pol).
4. Orbit Communication Ltd "AL-7108" (C-Band) Marine Stabilized System will maintain a stabilization tracking accuracy of better than 0.2 degrees under specified ship motion conditions. The internal controller software continuously monitor the instantaneous antenna tracking error and will cease the Tx of the BUC within 100ms (using M&C of the BUC) if an unexpected even occurs that causes the tracking error to exceed 0.5 degrees. Transmissions will not restart until the tracking error is less than 0.2 degrees of the target satellite.



5. Orbit Communication Ltd maintains all relevant test & analyzed data, which is available upon request.

Executed on December 13, 2011

Guy Naym

A handwritten signature in blue ink, appearing to be "Guy Naym".

Director R&D SatCom Systems
Orbit Communication Ltd

Radiation Hazard Study

The study in this section analyzes the potential RF human exposure levels caused by the Electro Magnetic (EM) fields of an Orbit AL-7108-C 2.4m antenna operating with a maximum power at the flange of 20 Watts. The mathematical analysis performed below complies with the methods described in the FCC Office of Engineering and Technology (OET) Bulletin No. 65 (1985 rev. 1997) R&O 96-3 26 in "Evaluating Compliance with FCC Guidelines for Human Exposure to RF EM Fields, OET Bulletin 65 (Edition 97-01), Supplement B, FCC Office of Engineering & Technology, November 1997".

Maximum Permissible Exposure

There are two separate levels of exposure limits. The first applies to persons in the general population who are in an uncontrolled environment. The second applies to trained personnel in a controlled environment. According to 47 C.F.R. § 1.1310, the Maximum Permissible Exposure (MPE) limits for frequencies above 1.5 GHz are as follows:

- * General Population / Uncontrolled Exposure: 1.0 mW/cm²
- * Occupational / Controlled Exposure: 5.0 mW/cm²

The purpose of this study is to determine the power flux density levels for the earth station under study as compared with the MPE limits. This comparison is done in each of the following regions:

1. Far-field region
2. Near-field region
3. Transition region
4. The region between the feed and the antenna surface
5. The main reflector region
6. The region between the antenna edge and the ground

Input Parameters

The following input parameters were used in the calculations:

<u>Input Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Symbol</u>
Antenna Diameter	2.40	m	D
Antenna Transmit Gain	41.80	dBi	G
Transmit Frequency	6150.0	MHz	f
Antenna Feed Flange Diam.	14.00	cm	d
Power Input to the Antenna	20.00	Watts	P

Calculated Parameters

The following values were calculated using the above input parameters and the corresponding formula:

Calculated Parameter	Value	Unit	Symbol	Formula
Antenna Surface Area	4.52	m ²	A	$\pi D^2/4$
Area of Antenna Flange	153.9	cm ²	a	$\pi d^2/4$
Antenna Efficiency	0.63		η	$g\lambda^2/(\pi^2 D^2)$
Gain Factor	15136		g	$10^{(G/10)}$
Wavelength	0.05	m	λ	$300/f$

Behavior of EM Fields as a Function of Distance

The behavior of the characteristics of EM fields varies depending on the distance from the radiating antenna. These characteristics are analyzed in three primary regions: the near-field region, the far-field region and the transition region. Of interest also are the region between the antenna main reflector and the subreflector, the region of the main reflector area and the region between the main reflector and ground.

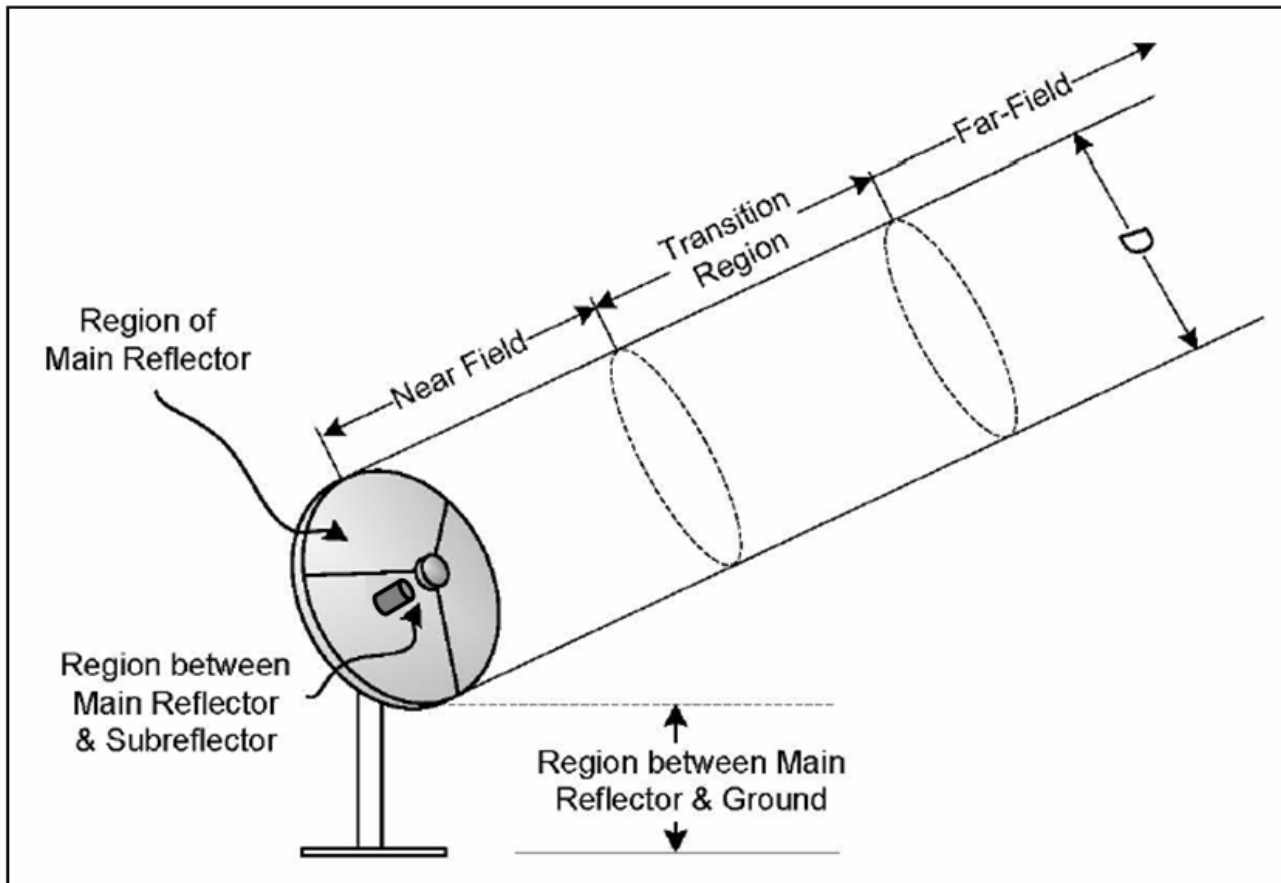


Figure 1. Electro-Magnetic Fields as a Function of Distance

For parabolic aperture antennas with circular cross sections, such as the antenna under study, the near-field, far-field and transition region distances are calculated as follows:

<u>Calculated Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Symbol</u>	<u>Formula</u>
Near-Field Distance	29.52	m	Rnf	$D^2/(4\lambda)$
Distance to Far-Field	70.85	m	Rff	$0.6D^2/\lambda$
Distance of Transition Region	29.52	m	Rt	$Rt=Rnf$

The distance in the transition region is between the near and far fields. Thus, $Rnf \leq Rt \leq Rff$. However, the power density in the transition region will not exceed the power density in the near-field. Therefore, for purposes of the present analysis, the distance of the transition region can equate the distance to the near-field.

Power Flux Density Calculations

The power flux density is considered to be at a maximum through the entire length of the near-field. This region is contained within a cylindrical volume with a diameter, D , equal to the diameter of the antenna. In the transition region and the far-field, the power density decreases inversely with the square of the distance. The following equations are used to calculate power density in these regions:

<u>Calculated Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Symbol</u>	<u>Formula</u>
Power Density in the Near-Field	1.12	mW/cm ²	Snf	$16\eta P/(\pi D^2)$
Power Density in the Far-Field	0.48	mW/cm ²	Sff	$gP/(4\pi Rff^2)$
Power Density in the Transition Region	1.12	mW/cm ²	St	$Snf \cdot Rnf/Rt$

The region between the main reflector and the subreflector is confined to within a conical shape defined by the feed assembly. The most common feed assemblies are waveguide flanges. This energy is determined as follows:

<u>Calculated Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Symbol</u>	<u>Formula</u>
Power Density at the Feed Flange	519.7	mW/cm ²	Sfa	$4P/a$

The power density in the main reflector is determined similarly to the power density at the feed flange; except that the area of the reflector is used.

<u>Calculated Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Symbol</u>	<u>Formula</u>
Power Density at Main Reflector	1.77	mW/cm ²	Ssurface	$4P/A$

The power density between the reflector and ground, assuming uniform illumination of the reflector surface, is calculated as follows:

<u>Calculated Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Symbol</u>	<u>Formula</u>
Power Density between Reflector & Gnd	0.44	mW/cm ²	Sg	P/A

Summary of Calculations

Table 1 summarizes the calculated power flux density values for each region. In a controlled environment, the only regions that exceed FCC limitations are the regions between the main reflector and the sub-reflector as well as the main reflector region. These regions are only accessible by trained technicians who, as a matter of procedure, turn off transmit power before performing any work in these areas.

<u>Calculated Parameter</u>	<u>Unit</u>	<u>Exposure Limit</u>	<u>Exposure Limit</u>
		Uncontrolled	Controlled
		Environment	Environment
Power Densities	mW/cm²	≤ 1 mW/cm²	≤ 5 mW/cm²
Far Field Calculation	0.48	Satisfies FCC MPE	Satisfies FCC MPE
Near Field Calculation	1.12	Exceeds limitations	Satisfies FCC MPE
Transition Region	1.12	Exceeds limitations	Satisfies FCC MPE
Region between Main & Subreflector	519.7	Exceeds limitations	Exceeds limitations
Main Reflector Region	1.77	Exceeds limitations	Satisfies FCC MPE
Region between Main Reflector & Gnd	0.44	Satisfies FCC MPE	Satisfies FCC MPE

Table 1. Power Flux Density for Each Region

In conclusion, the results show that the antenna, in a controlled environment, and under the proper mitigation procedures, meets the guidelines specified in § 1.1310 of the Regulations.

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AL-7108-C, 2.4m Antenna, EIRPsd Data Table
Co-pol Azimuth, -180° to +180° @ 1.0° increment

5.90 GHz @ -8.63 dBW / 4 kHz in Co-pol Az

Angle	EIRPsd	Mask	Over Mask
Degrees	dBW/4kHz	dBW/4kHz	dB
-179.0	-29.4	-12.7	-16.7
-178.0	-37.9	-12.7	-25.2
-177.0	-36.9	-12.7	-24.2
-176.0	-40.8	-12.7	-28.1
-175.0	-51.8	-12.7	-39.1
-174.0	-33.6	-12.7	-20.9
-173.0	-33.9	-12.7	-21.2
-172.0	-27.1	-12.7	-14.4
-171.0	-40.1	-12.7	-27.4
-170.0	-32.0	-12.7	-19.3
-169.0	-34.1	-12.7	-21.4
-168.0	-35.2	-12.7	-22.5
-167.0	-36.4	-12.7	-23.7
-166.0	-31.2	-12.7	-18.5
-165.0	-33.1	-12.7	-20.4
-164.0	-36.5	-12.7	-23.8
-163.0	-34.5	-12.7	-21.8
-162.0	-31.6	-12.7	-18.9
-161.0	-39.5	-12.7	-26.8
-160.0	-38.4	-12.7	-25.7
-159.0	-33.6	-12.7	-20.9
-158.0	-33.6	-12.7	-20.9
-157.0	-33.8	-12.7	-21.1
-156.0	-32.4	-12.7	-19.7
-155.0	-38.5	-12.7	-25.8
-154.0	-36.7	-12.7	-24.0
-153.0	-36.5	-12.7	-23.8
-152.0	-32.8	-12.7	-20.1
-151.0	-35.3	-12.7	-22.6
-150.0	-34.2	-12.7	-21.5
-149.0	-34.9	-12.7	-22.2
-148.0	-31.5	-12.7	-18.8
-147.0	-34.3	-12.7	-21.6
-146.0	-32.6	-12.7	-19.9
-145.0	-45.3	-12.7	-32.6
-144.0	-33.9	-12.7	-21.2
-143.0	-39.7	-12.7	-27.0
-142.0	-39.5	-12.7	-26.8
-141.0	-38.0	-12.7	-25.3
-140.0	-43.3	-12.7	-30.6
-139.0	-50.9	-12.7	-38.2
-138.0	-47.7	-12.7	-35.0
-137.0	-52.8	-12.7	-40.1
-136.0	-46.7	-12.7	-34.0
-135.0	-42.8	-12.7	-30.1
-134.0	-41.6	-12.7	-28.9
-133.0	-37.8	-12.7	-25.1
-132.0	-44.5	-12.7	-31.8
-131.0	-44.3	-12.7	-31.6
-130.0	-41.5	-12.7	-28.8
-129.0	-39.2	-12.7	-26.5
-128.0	-60.6	-12.7	-47.9
-127.0	-44.5	-12.7	-31.8
-126.0	-39.3	-12.7	-26.6
-125.0	-40.5	-12.7	-27.8
-124.0	-33.3	-12.7	-20.6
-123.0	-32.1	-12.7	-19.4
-122.0	-28.6	-12.7	-15.9
-121.0	-30.4	-12.7	-17.7
-120.0	-30.0	-12.7	-17.3
-119.0	-24.2	-12.7	-11.5
-118.0	-25.7	-12.7	-13.0

5.90 GHz @ -8.63 dBW / 4 kHz in Co-pol Az

Angle	EIRPsd	Mask	Over Mask
Degrees	dBW/4kHz	dBW/4kHz	dB
0.0	31.4		
1.0	27.5		
2.0	13.2	18.8	-5.6
3.0	1.1	14.4	-13.3
4.0	-2.5	11.2	-13.7
5.0	4.8	8.8	-4.0
6.0	-7.5	6.8	-14.4
7.0	-13.3	5.3	-18.6
8.0	-11.8	5.3	-17.1
9.0	-1.8	5.3	-7.1
10.0	-7.8	4.3	-12.1
11.0	-24.5	3.3	-27.8
12.0	-10.4	2.3	-12.8
13.0	-11.3	1.5	-12.8
14.0	-11.6	0.6	-12.3
15.0	-16.1	-0.1	-15.9
16.0	-16.1	-0.8	-15.3
17.0	-24.5	-1.5	-23.0
18.0	-15.3	-2.1	-13.2
19.0	-15.0	-2.7	-12.3
20.0	-18.8	-3.2	-15.6
21.0	-20.0	-3.8	-16.2
22.0	-19.9	-4.3	-15.6
23.0	-16.8	-4.7	-12.0
24.0	-16.2	-5.2	-11.0
25.0	-15.8	-5.6	-10.1
26.0	-19.7	-6.1	-13.7
27.0	-17.4	-6.5	-10.9
28.0	-19.9	-6.9	-13.0
29.0	-22.6	-7.3	-15.3
30.0	-18.3	-7.6	-10.7
31.0	-19.3	-8.0	-11.3
32.0	-18.6	-8.3	-10.2
33.0	-19.8	-8.7	-11.1
34.0	-16.2	-9.0	-7.2
35.0	-16.6	-9.3	-7.3
36.0	-18.8	-9.6	-9.2
37.0	-19.9	-9.9	-10.0
38.0	-23.1	-10.2	-12.9
39.0	-24.3	-10.5	-13.8
40.0	-33.7	-10.8	-23.0
41.0	-30.2	-11.0	-19.2
42.0	-29.3	-11.3	-18.0
43.0	-27.5	-11.5	-15.9
44.0	-22.1	-11.8	-10.3
45.0	-15.8	-12.0	-3.7
46.0	-14.1	-12.3	-1.9
47.0	-14.0	-12.5	-1.5
48.0	-13.3	-12.7	-0.6
49.0	-15.0	-12.7	-2.3
50.0	-16.8	-12.7	-4.1
51.0	-21.3	-12.7	-8.6
52.0	-27.2	-12.7	-14.5
53.0	-21.9	-12.7	-9.2
54.0	-19.1	-12.7	-6.4
55.0	-18.4	-12.7	-5.7
56.0	-17.8	-12.7	-5.1
57.0	-19.8	-12.7	-7.1
58.0	-22.7	-12.7	-10.0
59.0	-26.0	-12.7	-13.3
60.0	-29.9	-12.7	-17.2
61.0	-31.8	-12.7	-19.1

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AL-7108-C, 2.4m Antenna, EIRPsd Data Table
Co-pol Azimuth, -180° to +180° @ 1.0° increment

-117.0	-27.4	-12.7	-14.7
-116.0	-23.6	-12.7	-10.9
-115.0	-23.2	-12.7	-10.5
-114.0	-23.7	-12.7	-11.0
-113.0	-21.5	-12.7	-8.8
-112.0	-20.7	-12.7	-8.0
-111.0	-18.6	-12.7	-5.9
-110.0	-17.2	-12.7	-4.5
-109.0	-16.4	-12.7	-3.7
-108.0	-14.9	-12.7	-2.2
-107.0	-14.3	-12.7	-1.6
-106.0	-15.0	-12.7	-2.3
-105.0	-17.4	-12.7	-4.7
-104.0	-21.2	-12.7	-8.5
-103.0	-27.0	-12.7	-14.3
-102.0	-24.6	-12.7	-11.9
-101.0	-20.4	-12.7	-7.7
-100.0	-18.2	-12.7	-5.5
-99.0	-19.0	-12.7	-6.3
-98.0	-21.8	-12.7	-9.1
-97.0	-21.0	-12.7	-8.3
-96.0	-19.5	-12.7	-6.8
-95.0	-17.5	-12.7	-4.8
-94.0	-16.4	-12.7	-3.7
-93.0	-17.6	-12.7	-4.9
-92.0	-20.1	-12.7	-7.4
-91.0	-26.8	-12.7	-14.1
-90.0	-26.5	-12.7	-13.8
-89.0	-23.1	-12.7	-10.4
-88.0	-22.3	-12.7	-9.6
-87.0	-21.4	-12.7	-8.7
-86.0	-21.1	-12.7	-8.4
-85.0	-24.8	-12.7	-12.1
-84.0	-33.7	-12.7	-21.0
-83.0	-25.6	-12.7	-12.9
-82.0	-22.8	-12.7	-10.1
-81.0	-21.8	-12.7	-9.1
-80.0	-23.6	-12.7	-10.9
-79.0	-28.0	-12.7	-15.3
-78.0	-38.7	-12.7	-26.0
-77.0	-28.3	-12.7	-15.6
-76.0	-25.8	-12.7	-13.1
-75.0	-27.0	-12.7	-14.3
-74.0	-31.9	-12.7	-19.2
-73.0	-27.9	-12.7	-15.2
-72.0	-22.4	-12.7	-9.7
-71.0	-21.1	-12.7	-8.4
-70.0	-18.2	-12.7	-5.5
-69.0	-22.2	-12.7	-9.5
-68.0	-21.7	-12.7	-9.0
-67.0	-27.1	-12.7	-14.4
-66.0	-35.1	-12.7	-22.4
-65.0	-34.3	-12.7	-21.6
-64.0	-34.5	-12.7	-21.8
-63.0	-25.2	-12.7	-12.5
-62.0	-26.9	-12.7	-14.2
-61.0	-25.2	-12.7	-12.5
-60.0	-21.1	-12.7	-8.4
-59.0	-18.1	-12.7	-5.4
-58.0	-17.9	-12.7	-5.2
-57.0	-15.3	-12.7	-2.6
-56.0	-16.6	-12.7	-3.9
-55.0	-20.8	-12.7	-8.1
-54.0	-21.7	-12.7	-9.0
-53.0	-24.4	-12.7	-11.7

62.0	-29.9	-12.7	-17.2
63.0	-27.1	-12.7	-14.4
64.0	-32.7	-12.7	-20.0
65.0	-33.7	-12.7	-21.0
66.0	-34.4	-12.7	-21.7
67.0	-29.8	-12.7	-17.1
68.0	-27.5	-12.7	-14.8
69.0	-29.9	-12.7	-17.2
70.0	-28.2	-12.7	-15.5
71.0	-28.5	-12.7	-15.8
72.0	-28.8	-12.7	-16.1
73.0	-20.0	-12.7	-7.3
74.0	-24.1	-12.7	-11.4
75.0	-33.8	-12.7	-21.1
76.0	-23.7	-12.7	-11.0
77.0	-24.0	-12.7	-11.3
78.0	-29.5	-12.7	-16.8
79.0	-28.3	-12.7	-15.6
80.0	-29.5	-12.7	-16.8
81.0	-31.2	-12.7	-18.5
82.0	-23.0	-12.7	-10.3
83.0	-22.0	-12.7	-9.3
84.0	-21.3	-12.7	-8.6
85.0	-21.3	-12.7	-8.6
86.0	-22.2	-12.7	-9.5
87.0	-23.3	-12.7	-10.6
88.0	-30.7	-12.7	-18.0
89.0	-31.8	-12.7	-19.1
90.0	-29.4	-12.7	-16.7
91.0	-25.1	-12.7	-12.4
92.0	-23.0	-12.7	-10.3
93.0	-24.2	-12.7	-11.5
94.0	-22.1	-12.7	-9.4
95.0	-23.5	-12.7	-10.8
96.0	-19.6	-12.7	-6.9
97.0	-19.3	-12.7	-6.6
98.0	-21.5	-12.7	-8.8
99.0	-21.6	-12.7	-8.9
100.0	-25.0	-12.7	-12.3
101.0	-25.1	-12.7	-12.4
102.0	-24.5	-12.7	-11.8
103.0	-22.0	-12.7	-9.3
104.0	-20.0	-12.7	-7.3
105.0	-19.7	-12.7	-7.0
106.0	-19.1	-12.7	-6.4
107.0	-19.7	-12.7	-7.0
108.0	-21.9	-12.7	-9.2
109.0	-22.9	-12.7	-10.2
110.0	-24.0	-12.7	-11.3
111.0	-25.4	-12.7	-12.7
112.0	-23.4	-12.7	-10.7
113.0	-23.9	-12.7	-11.2
114.0	-24.4	-12.7	-11.7
115.0	-21.5	-12.7	-8.8
116.0	-25.8	-12.7	-13.1
117.0	-24.5	-12.7	-11.8
118.0	-24.5	-12.7	-11.8
119.0	-34.8	-12.7	-22.1
120.0	-27.8	-12.7	-15.1
121.0	-31.5	-12.7	-18.8
122.0	-31.4	-12.7	-18.7
123.0	-29.6	-12.7	-16.9
124.0	-39.6	-12.7	-26.9
125.0	-27.3	-12.7	-14.6
126.0	-36.7	-12.7	-24.0

Orbit Communication - Satcom Products

AL-7108-C, 2.4m Antenna, EIRPsd Data Table
Co-pol Azimuth, -180° to +180° @ 1.0° increment

-52.0	-22.3	-12.7	-9.6
-51.0	-17.9	-12.7	-5.2
-50.0	-14.3	-12.7	-1.6
-49.0	-14.4	-12.7	-1.7
-48.0	-13.7	-12.7	-1.0
-47.0	-14.5	-12.5	-2.0
-46.0	-15.8	-12.3	-3.6
-45.0	-18.6	-12.0	-6.6
-44.0	-21.7	-11.8	-9.9
-43.0	-22.4	-11.5	-10.8
-42.0	-26.7	-11.3	-15.4
-41.0	-38.2	-11.0	-27.2
-40.0	-30.5	-10.8	-19.7
-39.0	-29.8	-10.5	-19.3
-38.0	-23.9	-10.2	-13.7
-37.0	-19.1	-9.9	-9.1
-36.0	-21.1	-9.6	-11.4
-35.0	-18.5	-9.3	-9.1
-34.0	-16.8	-9.0	-7.8
-33.0	-19.5	-8.7	-10.8
-32.0	-20.0	-8.3	-11.7
-31.0	-25.0	-8.0	-17.1
-30.0	-22.9	-7.6	-15.3
-29.0	-28.8	-7.3	-21.5
-28.0	-24.8	-6.9	-17.9
-27.0	-18.8	-6.5	-12.4
-26.0	-22.4	-6.1	-16.3
-25.0	-18.7	-5.6	-13.0
-24.0	-17.6	-5.2	-12.4
-23.0	-15.3	-4.7	-10.6
-22.0	-19.5	-4.3	-15.2
-21.0	-19.7	-3.8	-15.9
-20.0	-19.9	-3.2	-16.7
-19.0	-47.3	-2.7	-44.6
-18.0	-24.3	-2.1	-22.2
-17.0	-14.5	-1.5	-13.1
-16.0	-30.9	-0.8	-30.1
-15.0	-15.2	-0.1	-15.1
-14.0	-12.6	0.6	-13.2
-13.0	-12.5	1.5	-13.9
-12.0	-12.6	2.3	-14.9
-11.0	-16.3	3.3	-19.6
-10.0	-11.1	4.3	-15.4
-9.0	-5.1	5.3	-10.4
-8.0	-19.7	5.3	-25.0
-7.0	-10.1	5.3	-15.4
-6.0	-12.6	6.8	-19.5
-5.0	3.7	8.8	-5.2
-4.0	0.0	11.2	-11.3
-3.0	-1.9	14.4	-16.3
-2.0	9.1	18.8	-9.7
-1.0	26.2		
0.0	31.4		

127.0	-31.4	-12.7	-18.7
128.0	-28.6	-12.7	-15.9
129.0	-33.3	-12.7	-20.6
130.0	-33.0	-12.7	-20.3
131.0	-31.0	-12.7	-18.3
132.0	-34.4	-12.7	-21.7
133.0	-32.4	-12.7	-19.7
134.0	-47.8	-12.7	-35.1
135.0	-33.4	-12.7	-20.7
136.0	-35.8	-12.7	-23.1
137.0	-33.3	-12.7	-20.6
138.0	-37.7	-12.7	-25.0
139.0	-35.1	-12.7	-22.4
140.0	-33.2	-12.7	-20.5
141.0	-43.4	-12.7	-30.7
142.0	-33.8	-12.7	-21.1
143.0	-30.4	-12.7	-17.7
144.0	-37.2	-12.7	-24.5
145.0	-29.3	-12.7	-16.6
146.0	-31.7	-12.7	-19.0
147.0	-31.8	-12.7	-19.1
148.0	-36.7	-12.7	-24.0
149.0	-46.3	-12.7	-33.6
150.0	-42.4	-12.7	-29.7
151.0	-36.9	-12.7	-24.2
152.0	-36.8	-12.7	-24.1
153.0	-35.2	-12.7	-22.5
154.0	-34.1	-12.7	-21.4
155.0	-35.1	-12.7	-22.4
156.0	-33.8	-12.7	-21.1
157.0	-30.7	-12.7	-18.0
158.0	-36.5	-12.7	-23.8
159.0	-39.9	-12.7	-27.2
160.0	-31.9	-12.7	-19.2
161.0	-32.6	-12.7	-19.9
162.0	-33.9	-12.7	-21.2
163.0	-31.7	-12.7	-19.0
164.0	-30.5	-12.7	-17.8
165.0	-28.6	-12.7	-15.9
166.0	-35.2	-12.7	-22.5
167.0	-31.8	-12.7	-19.1
168.0	-33.1	-12.7	-20.4
169.0	-41.2	-12.7	-28.5
170.0	-29.4	-12.7	-16.7
171.0	-27.3	-12.7	-14.6
172.0	-25.4	-12.7	-12.7
173.0	-34.5	-12.7	-21.8
174.0	-31.9	-12.7	-19.2
175.0	-32.8	-12.7	-20.1
176.0	-29.4	-12.7	-16.7
177.0	-26.8	-12.7	-14.1
178.0	-38.9	-12.7	-26.2
179.0	-24.5	-12.7	-11.8

Orbit Communication - Satcom Products

AL-7108-C, 2.4m Antenna, EIRPsd Data Table
Co-pol Azimuth, -10° to +10° @ 0.1° increment

5.90 GHz @ -8.63 dBW / 4 kHz in Co-pol Az

Angle	EIRPsd	Mask	Over Mask
Degrees	dBW/4kHz	dBW/4kHz	dB
-10.0	-11.1	4.3	-15.4
-9.9	-10.4	4.4	-14.8
-9.8	-9.6	4.5	-14.1
-9.7	-8.7	4.6	-13.3
-9.6	-7.8	4.7	-12.5
-9.5	-6.9	4.9	-11.7
-9.4	-6.2	5.0	-11.1
-9.3	-5.6	5.1	-10.7
-9.2	-5.2	5.2	-10.5
-9.1	-5.0	5.3	-10.3
-9.0	-5.1	5.3	-10.4
-8.9	-5.3	5.3	-10.6
-8.8	-5.8	5.3	-11.1
-8.7	-6.5	5.3	-11.8
-8.6	-7.7	5.3	-13.0
-8.5	-9.3	5.3	-14.6
-8.4	-11.6	5.3	-16.9
-8.3	-15.0	5.3	-20.3
-8.2	-20.8	5.3	-26.1
-8.1	-27.7	5.3	-33.0
-8.0	-19.7	5.3	-25.0
-7.9	-14.9	5.3	-20.2
-7.8	-11.9	5.3	-17.2
-7.7	-10.2	5.3	-15.5
-7.6	-9.0	5.3	-14.3
-7.5	-8.3	5.3	-13.6
-7.4	-8.0	5.3	-13.3
-7.3	-8.0	5.3	-13.3
-7.2	-8.4	5.3	-13.7
-7.1	-9.1	5.3	-14.4
-7.0	-10.1	5.3	-15.4
-6.9	-11.4	5.3	-16.8
-6.8	-13.3	5.5	-18.8
-6.7	-15.5	5.6	-21.2
-6.6	-18.0	5.8	-23.9
-6.5	-20.4	6.0	-26.4
-6.4	-21.1	6.1	-27.2
-6.3	-19.9	6.3	-26.2
-6.2	-17.7	6.5	-24.2
-6.1	-15.2	6.7	-21.9
-6.0	-12.6	6.8	-19.5
-5.9	-9.9	7.0	-17.0
-5.8	-7.6	7.2	-14.8
-5.7	-5.4	7.4	-12.8
-5.6	-3.5	7.6	-11.1
-5.5	-1.7	7.8	-9.5
-5.4	-0.2	8.0	-8.2
-5.3	1.0	8.2	-7.2
-5.2	2.1	8.4	-6.3
-5.1	3.0	8.6	-5.6
-5.0	3.7	8.8	-5.2
-4.9	4.1	9.0	-4.9
-4.8	4.4	9.3	-4.8
-4.7	4.6	9.5	-4.9
-4.6	4.5	9.7	-5.2
-4.5	4.3	10.0	-5.7
-4.4	3.8	10.2	-6.4
-4.3	3.2	10.5	-7.2
-4.2	2.4	10.7	-8.3
-4.1	1.3	11.0	-9.7
-4.0	0.0	11.2	-11.3
-3.9	-1.6	11.5	-13.2

5.90 GHz @ -8.63 dBW / 4 kHz in Co-pol Az

Angle	EIRPsd	Mask	Over Mask
Degrees	dBW/4kHz	dBW/4kHz	dB
0.0	31.4		
0.1	31.4		
0.2	31.3		
0.3	31.1		
0.4	30.9		
0.5	30.6		
0.6	30.1		
0.7	29.6		
0.8	29.0		
0.9	28.3		
1.0	27.5		
1.1	26.6		
1.2	25.6		
1.3	24.5		
1.4	23.2		
1.5	21.9	21.9	0.0
1.6	20.4	21.2	-0.8
1.7	18.7	20.5	-1.8
1.8	17.0	19.9	-2.9
1.9	15.2	19.3	-4.2
2.0	13.2	18.8	-5.6
2.1	11.2	18.2	-7.1
2.2	9.3	17.7	-8.5
2.3	7.6	17.3	-9.7
2.4	6.2	16.8	-10.6
2.5	5.2	16.4	-11.2
2.6	4.4	15.9	-11.5
2.7	3.7	15.5	-11.8
2.8	2.9	15.1	-12.2
2.9	2.0	14.7	-12.7
3.0	1.1	14.4	-13.3
3.1	-0.1	14.0	-14.1
3.2	-1.6	13.7	-15.3
3.3	-3.4	13.3	-16.7
3.4	-5.9	13.0	-18.9
3.5	-9.8	12.7	-22.5
3.6	-17.5	12.4	-29.9
3.7	-20.7	12.1	-32.8
3.8	-10.4	11.8	-22.2
3.9	-5.6	11.5	-17.1
4.0	-2.5	11.2	-13.7
4.1	-0.2	11.0	-11.2
4.2	1.4	10.7	-9.3
4.3	2.7	10.5	-7.8
4.4	3.7	10.2	-6.5
4.5	4.4	10.0	-5.6
4.6	4.8	9.7	-4.9
4.7	5.1	9.5	-4.4
4.8	5.2	9.3	-4.1
4.9	5.1	9.0	-4.0
5.0	4.8	8.8	-4.0
5.1	4.3	8.6	-4.3
5.2	3.7	8.4	-4.7
5.3	2.9	8.2	-5.3
5.4	1.9	8.0	-6.1
5.5	0.7	7.8	-7.1
5.6	-0.7	7.6	-8.3
5.7	-2.2	7.4	-9.6
5.8	-3.8	7.2	-11.0
5.9	-5.6	7.0	-12.6
6.0	-7.5	6.8	-14.4
6.1	-9.5	6.7	-16.1

Orbit Communication - Satcom Products

AL-7108-C, 2.4m Antenna, EIRPsd Data Table
Co-pol Azimuth, -10° to +10° @ 0.1° increment

-3.8	-3.5	11.8	-15.4
-3.7	-5.6	12.1	-17.7
-3.6	-7.4	12.4	-19.8
-3.5	-8.2	12.7	-20.9
-3.4	-7.6	13.0	-20.6
-3.3	-6.2	13.3	-19.5
-3.2	-4.6	13.7	-18.3
-3.1	-3.2	14.0	-17.2
-3.0	-1.9	14.4	-16.3
-2.9	-0.7	14.7	-15.5
-2.8	0.2	15.1	-14.9
-2.7	1.0	15.5	-14.5
-2.6	1.7	15.9	-14.2
-2.5	2.2	16.4	-14.1
-2.4	2.8	16.8	-14.0
-2.3	3.6	17.3	-13.7
-2.2	4.9	17.7	-12.8
-2.1	6.8	18.2	-11.4
-2.0	9.1	18.8	-9.7
-1.9	11.4	19.3	-7.9
-1.8	13.7	19.9	-6.2
-1.7	15.7	20.5	-4.8
-1.6	17.7	21.2	-3.5
-1.5	19.5	21.9	-2.4
-1.4	21.1		
-1.3	22.6		
-1.2	23.9		
-1.1	25.2		
-1.0	26.2		
-0.9	27.2		
-0.8	28.0		
-0.7	28.8		
-0.6	29.4		
-0.5	30.0		
-0.4	30.4		
-0.3	30.8		
-0.2	31.1		
-0.1	31.3		
0.0	31.4		

6.2	-11.3	6.5	-17.8
6.3	-12.8	6.3	-19.2
6.4	-14.1	6.1	-20.3
6.5	-15.0	6.0	-20.9
6.6	-15.3	5.8	-21.1
6.7	-15.1	5.6	-20.7
6.8	-14.5	5.5	-20.0
6.9	-13.9	5.3	-19.2
7.0	-13.3	5.3	-18.6
7.1	-12.9	5.3	-18.2
7.2	-12.8	5.3	-18.1
7.3	-13.1	5.3	-18.4
7.4	-13.9	5.3	-19.2
7.5	-15.1	5.3	-20.4
7.6	-16.7	5.3	-22.0
7.7	-18.1	5.3	-23.4
7.8	-17.2	5.3	-22.5
7.9	-14.7	5.3	-20.0
8.0	-11.8	5.3	-17.1
8.1	-9.3	5.3	-14.6
8.2	-7.4	5.3	-12.7
8.3	-5.9	5.3	-11.2
8.4	-4.7	5.3	-10.0
8.5	-3.7	5.3	-9.0
8.6	-3.0	5.3	-8.3
8.7	-2.5	5.3	-7.8
8.8	-2.1	5.3	-7.4
8.9	-1.9	5.3	-7.2
9.0	-1.8	5.3	-7.1
9.1	-1.9	5.3	-7.2
9.2	-2.1	5.2	-7.3
9.3	-2.4	5.1	-7.5
9.4	-2.9	5.0	-7.8
9.5	-3.4	4.9	-8.3
9.6	-4.1	4.7	-8.8
9.7	-4.9	4.6	-9.5
9.8	-5.7	4.5	-10.3
9.9	-6.7	4.4	-11.1
10.0	-7.8	4.3	-12.1

Orbit Communication - Satcom Products

AL-7108-C, 2.4m Antenna, EIRPsd Data Table
Co-pol Elevation, -30° to +30° @ 0.5° increment

5.90 GHz @ -8.63 dBW / 4 kHz in Co-pol EI

Angle	EIRPsd	Mask	Over Mask
Degrees	dBW/4kHz	dBW/4kHz	dB
-30.0	-22.9	-7.6	-15.3
-29.5	-24.2	-7.4	-16.7
-29.0	-28.8	-7.3	-21.5
-28.5	-28.8	-7.1	-21.8
-28.0	-24.8	-6.9	-17.9
-27.5	-20.8	-6.7	-14.1
-27.0	-18.8	-6.5	-12.4
-26.5	-20.3	-6.3	-14.0
-26.0	-22.4	-6.1	-16.3
-25.5	-20.6	-5.9	-14.7
-25.0	-18.7	-5.6	-13.0
-24.5	-17.9	-5.4	-12.5
-24.0	-17.6	-5.2	-12.4
-23.5	-16.5	-5.0	-11.5
-23.0	-15.3	-4.7	-10.6
-22.5	-16.2	-4.5	-11.7
-22.0	-19.5	-4.3	-15.2
-21.5	-21.4	-4.0	-17.4
-21.0	-19.7	-3.8	-15.9
-20.5	-19.3	-3.5	-15.8
-20.0	-19.9	-3.2	-16.7
-19.5	-25.4	-3.0	-22.4
-19.0	-47.3	-2.7	-44.6
-18.5	-41.6	-2.4	-39.2
-18.0	-24.3	-2.1	-22.2
-17.5	-16.9	-1.8	-15.2
-17.0	-14.5	-1.5	-13.1
-16.5	-17.5	-1.1	-16.4
-16.0	-30.9	-0.8	-30.1
-15.5	-24.2	-0.5	-23.7
-15.0	-15.2	-0.1	-15.1
-14.5	-11.4	0.3	-11.6
-14.0	-12.6	0.6	-13.2
-13.5	-18.8	1.0	-19.9
-13.0	-12.5	1.5	-13.9
-12.5	-10.5	1.9	-12.4
-12.0	-12.6	2.3	-14.9
-11.5	-17.8	2.8	-20.5
-11.0	-16.3	3.3	-19.6
-10.5	-12.3	3.8	-16.0
-10.0	-11.1	4.3	-15.4
-9.5	-6.9	4.9	-11.7
-9.0	-5.1	5.4	-10.5
-8.5	-9.3	6.1	-15.4
-8.0	-19.7	6.7	-26.4
-7.5	-8.3	7.4	-15.7
-7.0	-10.1	8.2	-18.2
-6.5	-20.4	9.0	-29.4
-6.0	-12.6	9.8	-22.5
-5.5	-1.7	10.8	-12.5
-5.0	3.7	11.8	-8.2
-4.5	4.3	13.0	-8.7
-4.0	0.0	14.2	-14.3
-3.5	-8.2	15.7	-23.9
-3.0	-1.9	17.4	-19.3
-2.5	2.2		
-2.0	9.1		
-1.5	19.5		
-1.0	26.2		
-0.5	30.0		
0.0	31.4		

5.90 GHz @ -8.63 dBW / 4 kHz in Co-pol EI

Angle	EIRPsd	Mask	Over Mask
Degrees	dBW/4kHz	dBW/4kHz	dB
0.0	31.4		
0.5	30.6		
1.0	27.5		
1.5	21.9		
2.0	13.2		
2.5	5.2		
3.0	1.1	17.4	-16.3
3.5	-9.8	15.7	-25.5
4.0	-2.5	14.2	-16.7
4.5	4.4	13.0	-8.6
5.0	4.8	11.8	-7.0
5.5	0.7	10.8	-10.1
6.0	-7.5	9.8	-17.4
6.5	-15.0	9.0	-23.9
7.0	-13.3	8.2	-21.5
7.5	-15.1	7.4	-22.5
8.0	-11.8	6.7	-18.5
8.5	-3.7	6.1	-9.8
9.0	-1.8	5.4	-7.3
9.5	-3.4	4.9	-8.3
10.0	-7.8	4.3	-12.1
10.5	-13.9	3.8	-17.7
11.0	-24.5	3.3	-27.8
11.5	-18.4	2.8	-21.2
12.0	-10.4	2.3	-12.8
12.5	-8.7	1.9	-10.6
13.0	-11.3	1.5	-12.8
13.5	-14.2	1.0	-15.2
14.0	-11.6	0.6	-12.3
14.5	-12.3	0.3	-12.6
15.0	-16.1	-0.1	-15.9
15.5	-17.4	-0.5	-17.0
16.0	-16.1	-0.8	-15.3
16.5	-17.5	-1.1	-16.4
17.0	-24.5	-1.5	-23.0
17.5	-19.2	-1.8	-17.4
18.0	-15.3	-2.1	-13.2
18.5	-14.5	-2.4	-12.1
19.0	-15.0	-2.7	-12.3
19.5	-17.3	-3.0	-14.3
20.0	-18.8	-3.2	-15.6
20.5	-18.5	-3.5	-15.0
21.0	-20.0	-3.8	-16.2
21.5	-20.5	-4.0	-16.5
22.0	-19.9	-4.3	-15.6
22.5	-18.6	-4.5	-14.1
23.0	-16.8	-4.7	-12.0
23.5	-16.5	-5.0	-11.5
24.0	-16.2	-5.2	-11.0
24.5	-15.5	-5.4	-10.0
25.0	-15.8	-5.6	-10.1
25.5	-17.1	-5.9	-11.3
26.0	-19.7	-6.1	-13.7
26.5	-20.0	-6.3	-13.8
27.0	-17.4	-6.5	-10.9
27.5	-17.3	-6.7	-10.7
28.0	-19.9	-6.9	-13.0
28.5	-23.6	-7.1	-16.5
29.0	-22.6	-7.3	-15.3
29.5	-19.5	-7.4	-12.0
30.0	-18.3	-7.6	-10.7

Orbit Communication - Satcom Products

AL-7108-C, 2.4m Antenna, EIRPsd Data Table
Co-pol Elevation, -10° to +10° @ 0.1° increment

5.90 GHz @ -8.63 dBW / 4 kHz in Co-pol EI

Angle	EIRPsd	Mask	Over Mask
Degrees	dBW/4kHz	dBW/4kHz	dB
-10.0	-7.8	4.3	-12.1
-9.9	-6.7	4.4	-11.1
-9.8	-5.7	4.5	-10.3
-9.7	-4.9	4.6	-9.5
-9.6	-4.1	4.7	-8.8
-9.5	-3.4	4.9	-8.3
-9.4	-2.9	5.0	-7.8
-9.3	-2.4	5.1	-7.5
-9.2	-2.1	5.2	-7.3
-9.1	-1.9	5.3	-7.2
-9.0	-1.8	5.4	-7.3
-8.9	-1.9	5.6	-7.4
-8.8	-2.1	5.7	-7.8
-8.7	-2.5	5.8	-8.3
-8.6	-3.0	5.9	-8.9
-8.5	-3.7	6.1	-9.8
-8.4	-4.7	6.2	-10.9
-8.3	-5.9	6.3	-12.3
-8.2	-7.4	6.5	-13.9
-8.1	-9.3	6.6	-15.9
-8.0	-11.8	6.7	-18.5
-7.9	-14.7	6.9	-21.6
-7.8	-17.2	7.0	-24.2
-7.7	-18.1	7.1	-25.2
-7.6	-16.7	7.3	-24.0
-7.5	-15.1	7.4	-22.5
-7.4	-13.9	7.6	-21.4
-7.3	-13.1	7.7	-20.9
-7.2	-12.8	7.9	-20.7
-7.1	-12.9	8.0	-20.9
-7.0	-13.3	8.2	-21.5
-6.9	-13.9	8.3	-22.2
-6.8	-14.5	8.5	-23.0
-6.7	-15.1	8.6	-23.7
-6.6	-15.3	8.8	-24.1
-6.5	-15.0	9.0	-23.9
-6.4	-14.1	9.1	-23.3
-6.3	-12.8	9.3	-22.2
-6.2	-11.3	9.5	-20.8
-6.1	-9.5	9.7	-19.1
-6.0	-7.5	9.8	-17.4
-5.9	-5.6	10.0	-15.6
-5.8	-3.8	10.2	-14.0
-5.7	-2.2	10.4	-12.6
-5.6	-0.7	10.6	-11.3
-5.5	0.7	10.8	-10.1
-5.4	1.9	11.0	-9.1
-5.3	2.9	11.2	-8.3
-5.2	3.7	11.4	-7.7
-5.1	4.3	11.6	-7.3
-5.0	4.8	11.8	-7.0
-4.9	5.1	12.0	-7.0
-4.8	5.2	12.3	-7.1
-4.7	5.1	12.5	-7.4
-4.6	4.8	12.7	-7.9
-4.5	4.4	13.0	-8.6
-4.4	3.7	13.2	-9.5
-4.3	2.7	13.5	-10.8
-4.2	1.4	13.7	-12.3
-4.1	-0.2	14.0	-14.2
-4.0	-2.5	14.2	-16.7
-3.9	-5.6	14.5	-20.1

5.90 GHz @ -8.63 dBW / 4 kHz in Co-pol EI

Angle	EIRPsd	Mask	Over Mask
Degrees	dBW/4kHz	dBW/4kHz	dB
0.0	31.4		
0.1	31.3		
0.2	31.1		
0.3	30.8		
0.4	30.4		
0.5	30.0		
0.6	29.4		
0.7	28.8		
0.8	28.0		
0.9	27.2		
1.0	26.2		
1.1	25.2		
1.2	23.9		
1.3	22.6		
1.4	21.1		
1.5	19.5		
1.6	17.7		
1.7	15.7		
1.8	13.7		
1.9	11.4		
2.0	9.1		
2.1	6.8		
2.2	4.9		
2.3	3.6		
2.4	2.8		
2.5	2.2		
2.6	1.7		
2.7	1.0		
2.8	0.2		
2.9	-0.7		
3.0	-1.9	17.4	-19.3
3.1	-3.2	17.0	-20.2
3.2	-4.6	16.7	-21.3
3.3	-6.2	16.3	-22.5
3.4	-7.6	16.0	-23.6
3.5	-8.2	15.7	-23.9
3.6	-7.4	15.4	-22.8
3.7	-5.6	15.1	-20.7
3.8	-3.5	14.8	-18.4
3.9	-1.6	14.5	-16.2
4.0	0.0	14.2	-14.3
4.1	1.3	14.0	-12.7
4.2	2.4	13.7	-11.3
4.3	3.2	13.5	-10.2
4.4	3.8	13.2	-9.4
4.5	4.3	13.0	-8.7
4.6	4.5	12.7	-8.2
4.7	4.6	12.5	-7.9
4.8	4.4	12.3	-7.8
4.9	4.1	12.0	-7.9
5.0	3.7	11.8	-8.2
5.1	3.0	11.6	-8.6
5.2	2.1	11.4	-9.3
5.3	1.0	11.2	-10.2
5.4	-0.2	11.0	-11.2
5.5	-1.7	10.8	-12.5
5.6	-3.5	10.6	-14.1
5.7	-5.4	10.4	-15.8
5.8	-7.6	10.2	-17.8
5.9	-9.9	10.0	-20.0
6.0	-12.6	9.8	-22.5
6.1	-15.2	9.7	-24.9

Orbit Communication - Satcom Products

AL-7108-C, 2.4m Antenna, EIRPsd Data Table
Co-pol Elevation, -10° to +10° @ 0.1° increment

-3.8	-10.4	14.8	-25.2
-3.7	-20.7	15.1	-35.8
-3.6	-17.5	15.4	-32.9
-3.5	-9.8	15.7	-25.5
-3.4	-5.9	16.0	-21.9
-3.3	-3.4	16.3	-19.7
-3.2	-1.6	16.7	-18.3
-3.1	-0.1	17.0	-17.1
-3.0	1.1	17.4	-16.3
-2.9	2.0		
-2.8	2.9		
-2.7	3.7		
-2.6	4.4		
-2.5	5.2		
-2.4	6.2		
-2.3	7.6		
-2.2	9.3		
-2.1	11.2		
-2.0	13.2		
-1.9	15.2		
-1.8	17.0		
-1.7	18.7		
-1.6	20.4		
-1.5	21.9		
-1.4	23.2		
-1.3	24.5		
-1.2	25.6		
-1.1	26.6		
-1.0	27.5		
-0.9	28.3		
-0.8	29.0		
-0.7	29.6		
-0.6	30.1		
-0.5	30.6		
-0.4	30.9		
-0.3	31.1		
-0.2	31.3		
-0.1	31.4		
0.0	31.4		

6.2	-17.7	9.5	-27.2
6.3	-19.9	9.3	-29.2
6.4	-21.1	9.1	-30.2
6.5	-20.4	9.0	-29.4
6.6	-18.0	8.8	-26.9
6.7	-15.5	8.6	-24.2
6.8	-13.3	8.5	-21.8
6.9	-11.4	8.3	-19.8
7.0	-10.1	8.2	-18.2
7.1	-9.1	8.0	-17.1
7.2	-8.4	7.9	-16.3
7.3	-8.0	7.7	-15.8
7.4	-8.0	7.6	-15.6
7.5	-8.3	7.4	-15.7
7.6	-9.0	7.3	-16.3
7.7	-10.2	7.1	-17.3
7.8	-11.9	7.0	-18.9
7.9	-14.9	6.9	-21.7
8.0	-19.7	6.7	-26.4
8.1	-27.7	6.6	-34.3
8.2	-20.8	6.5	-27.3
8.3	-15.0	6.3	-21.3
8.4	-11.6	6.2	-17.8
8.5	-9.3	6.1	-15.4
8.6	-7.7	5.9	-13.6
8.7	-6.5	5.8	-12.3
8.8	-5.8	5.7	-11.4
8.9	-5.3	5.6	-10.8
9.0	-5.1	5.4	-10.5
9.1	-5.0	5.3	-10.4
9.2	-5.2	5.2	-10.5
9.3	-5.6	5.1	-10.7
9.4	-6.2	5.0	-11.1
9.5	-6.9	4.9	-11.7
9.6	-7.8	4.7	-12.5
9.7	-8.7	4.6	-13.3
9.8	-9.6	4.5	-14.1
9.9	-10.4	4.4	-14.8
10.0	-11.1	4.3	-15.4

Orbit Communication - Satcom Products

AL-7108-C, 2.4m Antenna, EIRPsd Data Table
X-pol Azimuth, -10° to +10° @ 0.1° increment

5.90 GHz @ -8.63 dBW / 4 kHz in X-pol Az

Angle	EIRPsd	Mask	Over Mask
Degrees	dBW/4kHz	dBW/4kHz	dB
-10.0	-13.1	-4.7	-8.4
-9.9	-14.3	-4.7	-9.6
-9.8	-15.4	-4.7	-10.7
-9.7	-16.5	-4.7	-11.8
-9.6	-17.3	-4.7	-12.6
-9.5	-17.4	-4.7	-12.7
-9.4	-16.8	-4.7	-12.1
-9.3	-15.8	-4.7	-11.1
-9.2	-14.6	-4.7	-9.9
-9.1	-13.4	-4.7	-8.7
-9.0	-12.2	-4.7	-7.5
-8.9	-11.1	-4.7	-6.4
-8.8	-10.1	-4.7	-5.4
-8.7	-9.2	-4.7	-4.5
-8.6	-8.4	-4.7	-3.7
-8.5	-7.6	-4.7	-2.9
-8.4	-6.9	-4.7	-2.2
-8.3	-6.3	-4.7	-1.6
-8.2	-5.9	-4.7	-1.2
-8.1	-5.6	-4.7	-0.9
-8.0	-5.3	-4.7	-0.6
-7.9	-5.2	-4.7	-0.5
-7.8	-5.2	-4.7	-0.5
-7.7	-5.4	-4.7	-0.7
-7.6	-5.7	-4.7	-1.0
-7.5	-6.1	-4.7	-1.4
-7.4	-6.6	-4.7	-1.9
-7.3	-7.3	-4.7	-2.6
-7.2	-8.0	-4.7	-3.3
-7.1	-8.9	-4.7	-4.2
-7.0	-9.8	-4.7	-5.1
-6.9	-10.6	-4.7	-5.9
-6.8	-11.1	-4.5	-6.6
-6.7	-11.4	-4.4	-7.1
-6.6	-11.3	-4.2	-7.1
-6.5	-10.8	-4.0	-6.8
-6.4	-10.1	-3.9	-6.2
-6.3	-9.3	-3.7	-5.6
-6.2	-8.4	-3.5	-4.9
-6.1	-7.6	-3.3	-4.3
-6.0	-6.8	-3.2	-3.7
-5.9	-6.1	-3.0	-3.1
-5.8	-5.4	-2.8	-2.6
-5.7	-4.8	-2.6	-2.2
-5.6	-4.3	-2.4	-1.9
-5.5	-4.0	-2.2	-1.7
-5.4	-3.6	-2.0	-1.6
-5.3	-3.4	-1.8	-1.6
-5.2	-3.4	-1.6	-1.8
-5.1	-3.4	-1.4	-2.0
-5.0	-3.5	-1.2	-2.4
-4.9	-3.8	-1.0	-2.9
-4.8	-4.3	-0.7	-3.6
-4.7	-4.9	-0.5	-4.4
-4.6	-5.6	-0.3	-5.3
-4.5	-6.5	0.0	-6.5
-4.4	-7.7	0.2	-8.0
-4.3	-9.2	0.5	-9.6
-4.2	-10.9	0.7	-11.6
-4.1	-13.0	1.0	-14.0
-4.0	-15.7	1.2	-16.9
-3.9	-18.3	1.5	-19.8

5.90 GHz @ -8.63 dBW / 4 kHz in X-pol Az

Angle	EIRPsd	Mask	Over Mask
Degrees	dBW/4kHz	dBW/4kHz	dB
0.0	-10.2		
0.1	-10.1		
0.2	-9.4		
0.3	-8.8		
0.4	-8.4		
0.5	-8.1		
0.6	-8.1		
0.7	-8.4		
0.8	-9.0		
0.9	-9.9		
1.0	-11.0		
1.1	-12.2		
1.2	-12.9		
1.3	-12.8		
1.4	-12.0		
1.5	-10.8		
1.6	-9.7		
1.7	-8.8		
1.8	-8.2	9.9	-18.1
1.9	-7.8	9.3	-17.1
2.0	-7.7	8.8	-16.4
2.1	-7.8	8.2	-16.0
2.2	-8.1	7.7	-15.9
2.3	-8.8	7.3	-16.0
2.4	-9.6	6.8	-16.4
2.5	-10.6	6.4	-17.0
2.6	-11.7	5.9	-17.6
2.7	-12.4	5.5	-17.9
2.8	-12.6	5.1	-17.8
2.9	-12.4	4.7	-17.1
3.0	-11.7	4.4	-16.1
3.1	-11.0	4.0	-15.0
3.2	-10.5	3.7	-14.1
3.3	-10.1	3.3	-13.5
3.4	-10.1	3.0	-13.1
3.5	-10.4	2.7	-13.1
3.6	-11.1	2.4	-13.5
3.7	-12.2	2.1	-14.3
3.8	-13.8	1.8	-15.7
3.9	-16.4	1.5	-17.9
4.0	-19.1	1.2	-20.3
4.1	-19.1	1.0	-20.1
4.2	-15.9	0.7	-16.6
4.3	-12.6	0.5	-13.1
4.4	-10.1	0.2	-10.3
4.5	-8.2	0.0	-8.2
4.6	-6.7	-0.3	-6.4
4.7	-5.4	-0.5	-4.9
4.8	-4.6	-0.7	-3.9
4.9	-4.0	-1.0	-3.0
5.0	-3.5	-1.2	-2.3
5.1	-3.3	-1.4	-1.9
5.2	-3.2	-1.6	-1.6
5.3	-3.4	-1.8	-1.6
5.4	-3.6	-2.0	-1.6
5.5	-4.1	-2.2	-1.9
5.6	-4.7	-2.4	-2.3
5.7	-5.5	-2.6	-2.9
5.8	-6.4	-2.8	-3.6
5.9	-7.5	-3.0	-4.5
6.0	-8.6	-3.2	-5.5
6.1	-9.9	-3.3	-6.6

Orbit Communication - Satcom Products

AL-7108-C, 2.4m Antenna, EIRPsd Data Table

X-pol Azimuth, -10° to +10° @ 0.1° increment

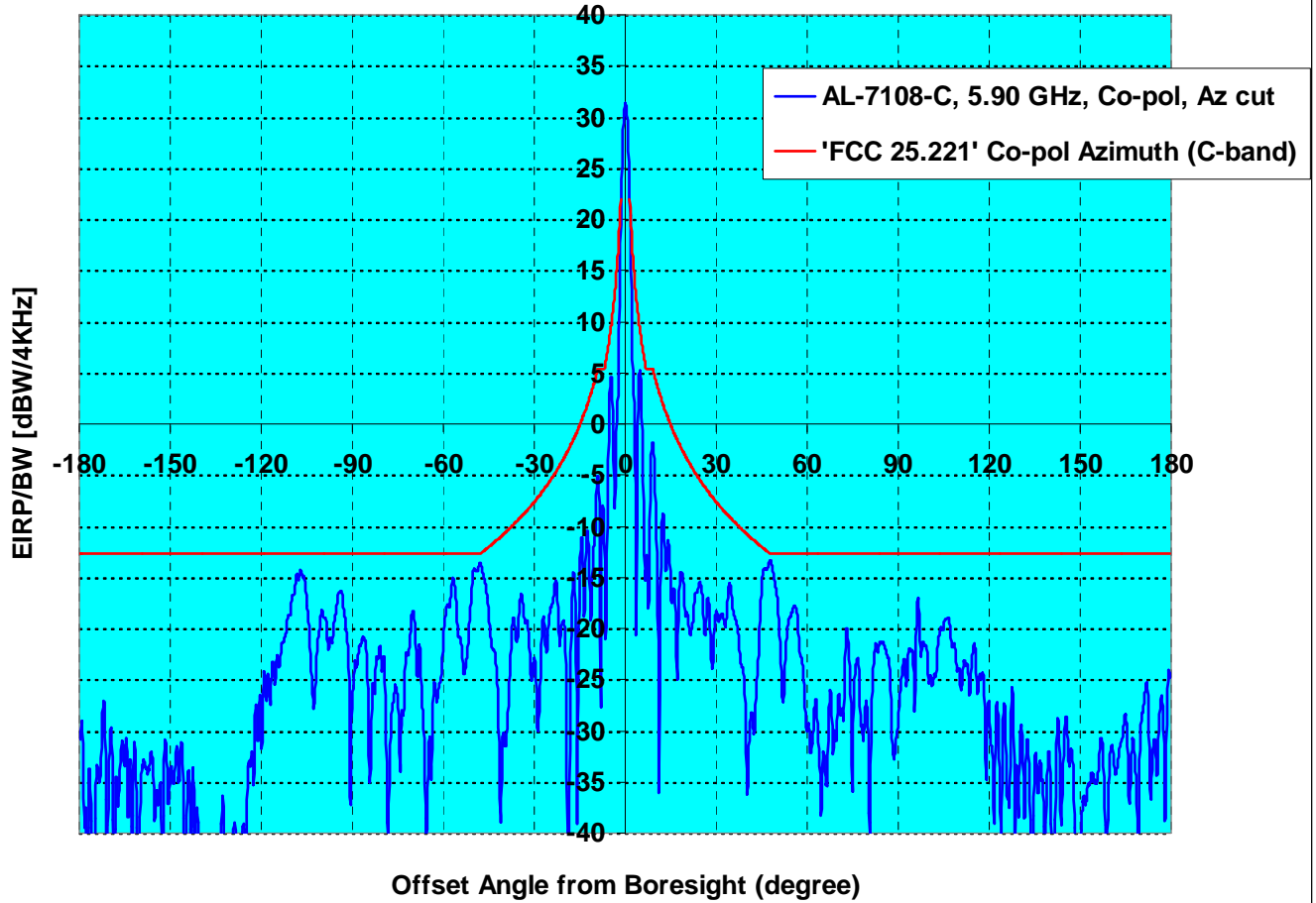
-3.8	-19.2	1.8	-21.0
-3.7	-17.3	2.1	-19.4
-3.6	-14.8	2.4	-17.2
-3.5	-12.7	2.7	-15.4
-3.4	-11.2	3.0	-14.2
-3.3	-10.0	3.3	-13.4
-3.2	-9.2	3.7	-12.9
-3.1	-8.7	4.0	-12.7
-3.0	-8.5	4.4	-12.9
-2.9	-8.6	4.7	-13.3
-2.8	-8.9	5.1	-14.0
-2.7	-9.3	5.5	-14.8
-2.6	-9.8	5.9	-15.7
-2.5	-10.0	6.4	-16.4
-2.4	-9.7	6.8	-16.5
-2.3	-8.8	7.3	-16.0
-2.2	-7.4	7.7	-15.2
-2.1	-5.9	8.2	-14.1
-2.0	-4.4	8.8	-13.2
-1.9	-3.1	9.3	-12.5
-1.8	-2.0	9.9	-11.9
-1.7	-1.1		
-1.6	-0.4		
-1.5	0.2		
-1.4	0.5		
-1.3	0.7		
-1.2	0.8		
-1.1	0.6		
-1.0	0.3		
-0.9	-0.2		
-0.8	-0.9		
-0.7	-1.7		
-0.6	-2.7		
-0.5	-4.0		
-0.4	-5.5		
-0.3	-7.1		
-0.2	-8.5		
-0.1	-9.8		
0.0	-10.2		

6.2	-11.2	-3.5	-7.7
6.3	-12.3	-3.7	-8.7
6.4	-13.3	-3.9	-9.4
6.5	-13.8	-4.0	-9.7
6.6	-13.7	-4.2	-9.5
6.7	-13.3	-4.4	-8.9
6.8	-12.5	-4.5	-8.0
6.9	-11.7	-4.7	-7.0
7.0	-11.0	-4.7	-6.3
7.1	-10.2	-4.7	-5.5
7.2	-9.3	-4.7	-4.6
7.3	-8.6	-4.7	-3.9
7.4	-8.2	-4.7	-3.5
7.5	-7.7	-4.7	-3.0
7.6	-7.3	-4.7	-2.6
7.7	-7.0	-4.7	-2.3
7.8	-7.0	-4.7	-2.3
7.9	-7.0	-4.7	-2.3
8.0	-7.1	-4.7	-2.4
8.1	-7.3	-4.7	-2.6
8.2	-7.6	-4.7	-2.9
8.3	-8.1	-4.7	-3.4
8.4	-8.6	-4.7	-3.9
8.5	-9.1	-4.7	-4.4
8.6	-9.7	-4.7	-5.0
8.7	-10.4	-4.7	-5.7
8.8	-11.0	-4.7	-6.3
8.9	-11.6	-4.7	-6.9
9.0	-12.2	-4.7	-7.5
9.1	-12.7	-4.7	-8.0
9.2	-13.0	-4.7	-8.3
9.3	-13.2	-4.7	-8.5
9.4	-13.2	-4.7	-8.5
9.5	-13.1	-4.7	-8.4
9.6	-12.9	-4.7	-8.2
9.7	-12.8	-4.7	-8.1
9.8	-12.7	-4.7	-8.0
9.9	-12.7	-4.7	-8.0
10.0	-12.9	-4.7	-8.2

Orbit Communication - Satcom Products

AL-7108-C, 2.4m Antenna, EIRPsd, Co-pol, Azimuth

'FCC 25.221' Co-pol Guide at C-band for EIRP/BW of -8.63 dBW/4KHz to Input
and 31.36 dBW/4KHz in the Output of AL-7108-C Antenna at 5.90 GHz in Az cut
Min BW of 413 KHz in case of 20W BUC

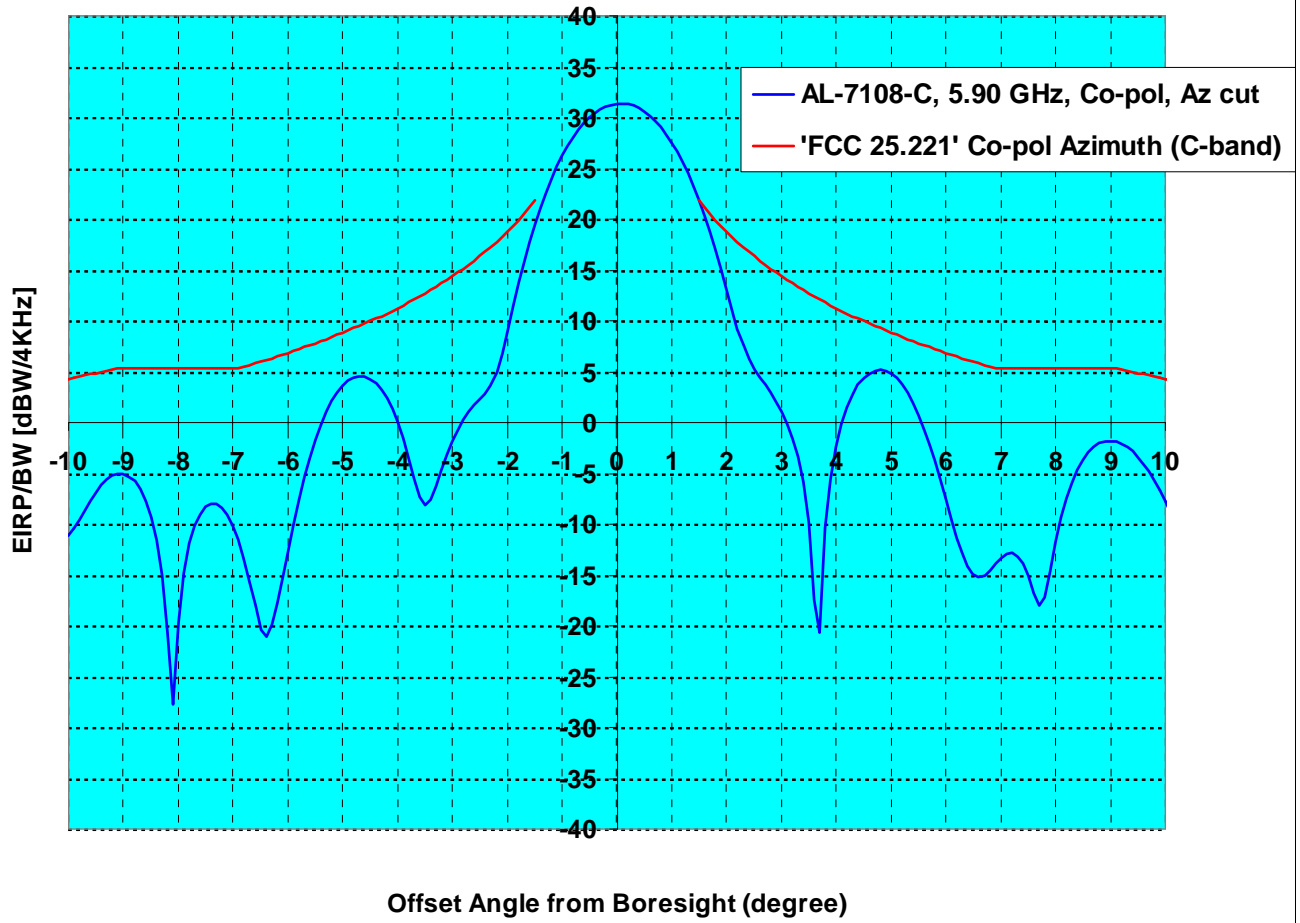


Configuration System, Frequency, Polarization, Plane	Input EIRPsd dBW/4KHz	Antenna Gain dBi	Peak Excursions dB		Over Mask %
			$\pm (1.5^\circ \text{ to } 7^\circ)$	$\pm (7^\circ \text{ to } 180^\circ)$	
AL-7108-C, 5.90 GHz, Co-pol, Az cut	-8.63	39.99	0.00	-0.60	0.00

Orbit Communication - Satcom Products

AL-7108-C, 2.4m Antenna, EIRPsd, Co-pol, Azimuth

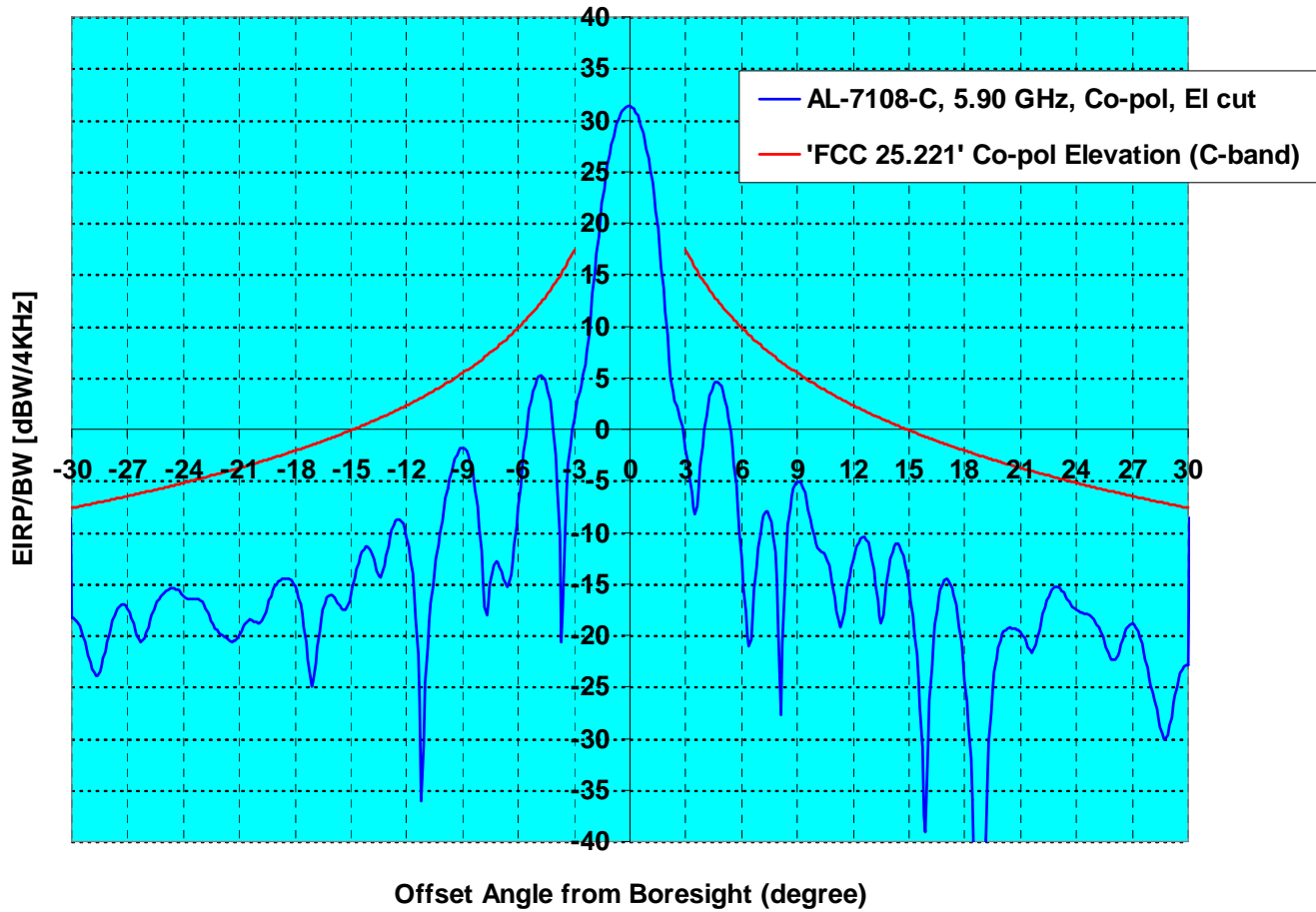
'FCC 25.221' Co-pol Guide at C-band for EIRP/BW of -8.63 dBW/4KHz to Input
and 31.36 dBW/4KHz in the Output of AL-7108-C Antenna at 5.90 GHz in Az cut
Min BW of 413 KHz in case of 20W BUC



Configuration	Input EIRPsd	Antenna Gain	Peak Excursions dB		Over Mask
System, Frequency, Polarization, Plane	dBW/4KHz	dBi	± (1.5° to 7°)	± (7° to 180°)	%
AL-7108-C, 5.90 GHz, Co-pol, Az cut	-8.63	39.99	0.00	-0.60	0.00

Orbit Communication - Satcom Products
AL-7108-C, 2.4m Antenna, EIRPsd, Co-pol, Elevation

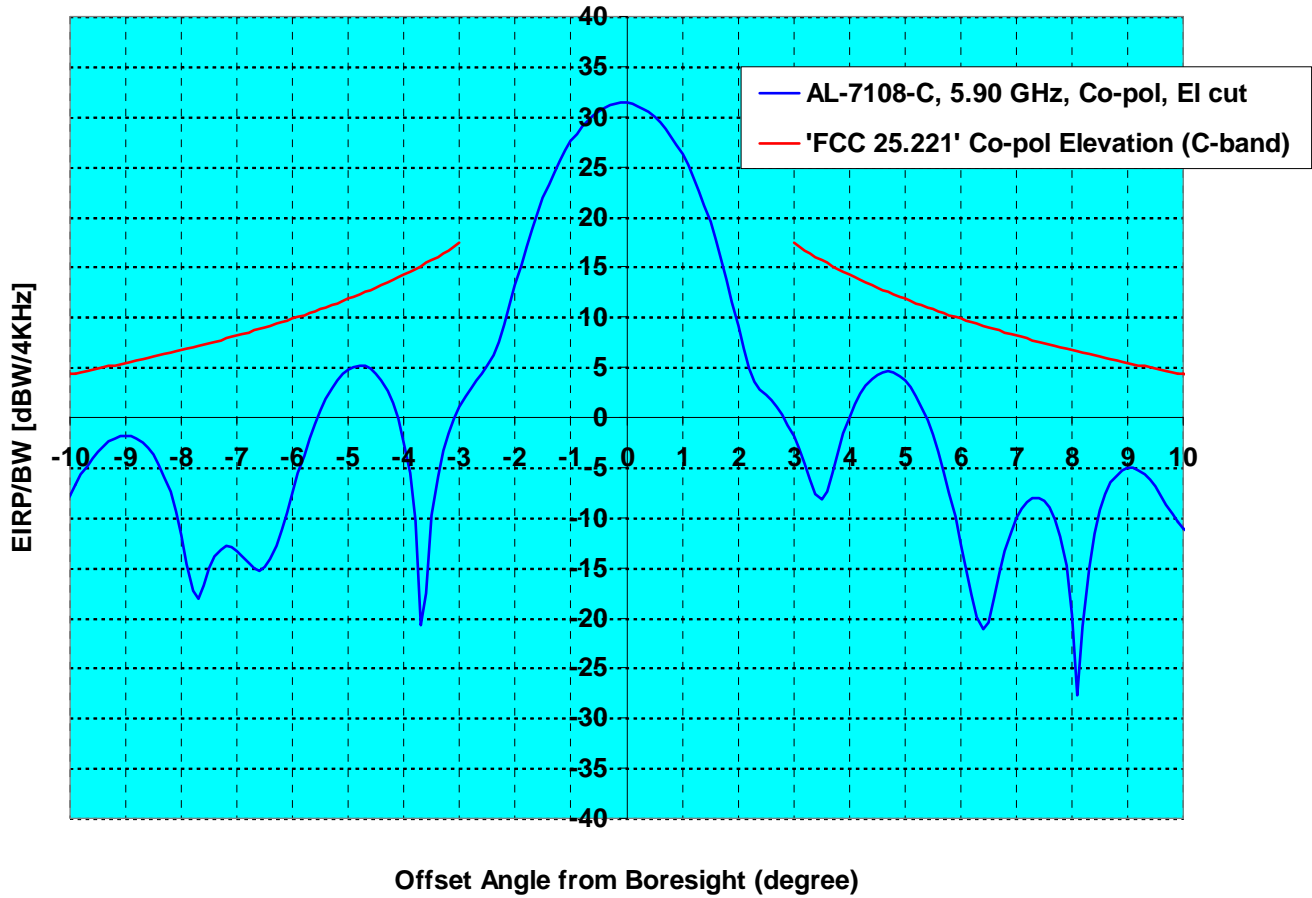
'FCC 25.221' Co-pol Guide at C-band for EIRP/BW of -8.63 dBW/4KHz to Input and
31.36 dBW/4KHz in the Output of AL-7108-C Antenna at 5.90 GHz in El cut
Min BW of 413 KHz in case of 20W BUC



Configuration System, Frequency, Polarization, Plane	Input EIRPsd dBW/4KHz	Antenna Gain dBi	Peak Excursions dB		Over Mask %
			± (3° to 7°)	± (3° to 30°)	
AL-7108-C, 5.90 GHz, Co-pol, El cut	-8.63	39.99	-6.96	-6.96	0.00

Orbit Communication - Satcom Products
AL-7108-C, 2.4m Antenna, EIRPsd, Co-pol, Elevation

'FCC 25.221' Co-pol Guide at C-band for EIRP/BW of -8.63 dBW/4KHz to Input
and 31.36 dBW/4KHz in the Output of AL-7108-C Antenna at 5.90 GHz in EI cut
Min BW of 413 KHz in case of 20W BUC

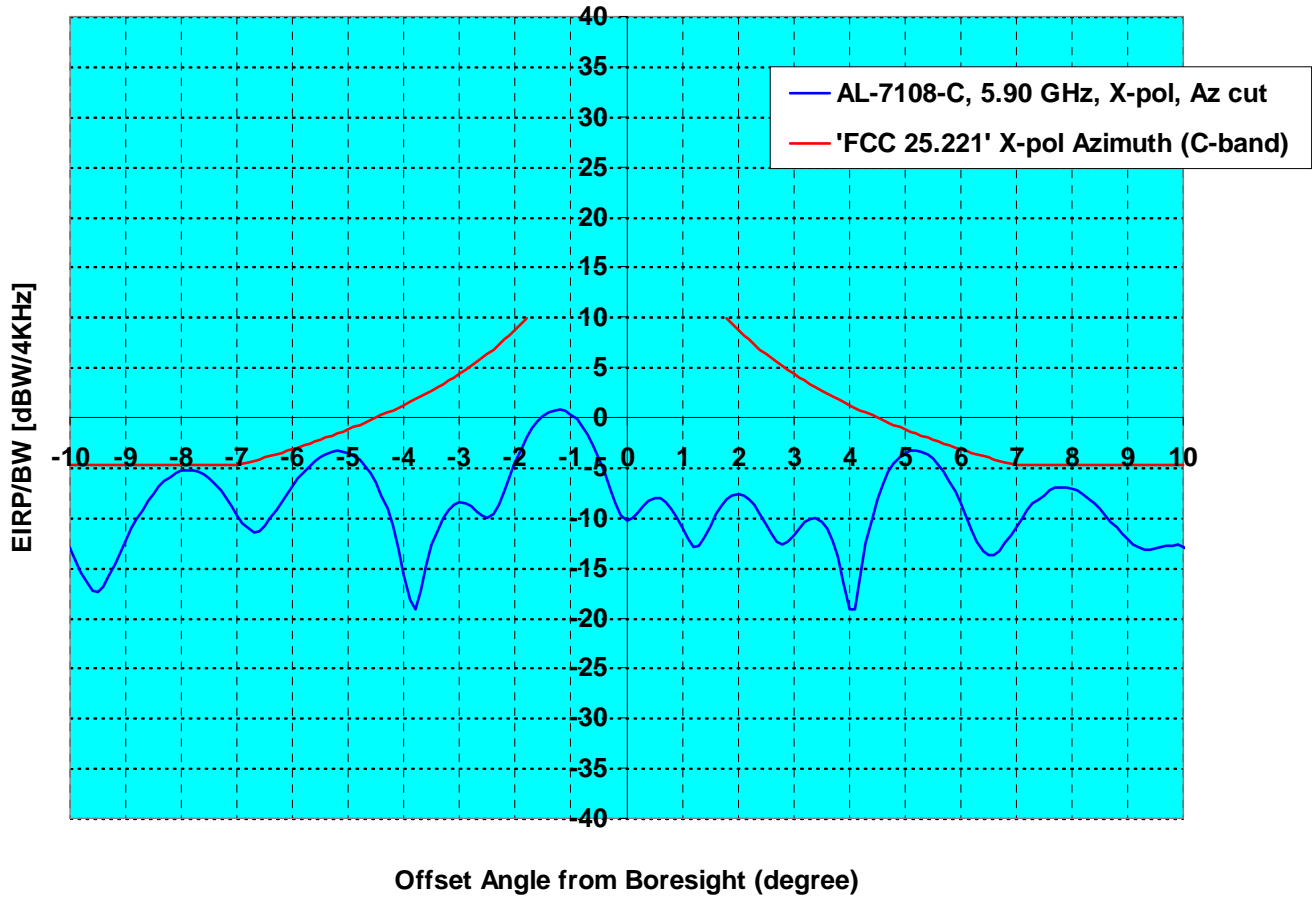


Configuration	Input EIRPsd	Antenna Gain	Peak Excursions dB		Over Mask
System, Frequency, Polarization, Plane	dBW/4KHz	dBi	± (3° to 7°)	± (3° to 30°)	%
AL-7108-C, 5.90 GHz, Co-pol, EI cut	-8.63	39.99	-6.96	-6.96	0.00

Orbit Communication - Satcom Products

AL-7108-C, 2.4m Antenna, EIRPsd, X-pol, Azimuth

'FCC 25.221' X-pol Guide at C-band for EIRP/BW of -8.63 dBW/4KHz to Input
and 31.36 dBW/4KHz in the Output of AL-7108-C Antenna at 5.90 GHz in Az cut
Min BW of 413 KHz in case of 20W BUC



Configuration	Input EIRPsd	Antenna Gain	Peak Excursions dB		Over Mask
System, Frequency, Polarization, Plane	dBW/4KHz	dBi	± (1.8° to 7°)	± (1.8° to 180°)	%
AL-7108-C, 5.90 GHz, X-pol, Az cut	-8.63	39.99	-1.57	-0.54	0.00

Orbit Communication - Satcom Products

AL-7108-C, 2.4m Antenna, EIRPsd Data Table
Co-pol Azimuth, -180° to +180° @ 1.0° increment

6.15 GHz @ -8.18 dBW / 4 kHz in Co-pol Az

Angle	EIRPsd	Mask	Over Mask
Degrees	dBW/4kHz	dBW/4kHz	dB
-179.0	-31.0	-12.7	-18.3
-178.0	-26.3	-12.7	-13.6
-177.0	-48.4	-12.7	-35.7
-176.0	-33.9	-12.7	-21.2
-175.0	-35.7	-12.7	-23.0
-174.0	-34.2	-12.7	-21.5
-173.0	-30.5	-12.7	-17.8
-172.0	-45.7	-12.7	-33.0
-171.0	-39.2	-12.7	-26.5
-170.0	-35.0	-12.7	-22.3
-169.0	-45.9	-12.7	-33.2
-168.0	-35.9	-12.7	-23.2
-167.0	-34.0	-12.7	-21.3
-166.0	-34.7	-12.7	-22.0
-165.0	-42.2	-12.7	-29.5
-164.0	-35.5	-12.7	-22.8
-163.0	-34.4	-12.7	-21.7
-162.0	-31.5	-12.7	-18.8
-161.0	-41.6	-12.7	-28.9
-160.0	-35.6	-12.7	-22.9
-159.0	-38.2	-12.7	-25.5
-158.0	-29.6	-12.7	-16.9
-157.0	-32.6	-12.7	-19.9
-156.0	-29.2	-12.7	-16.5
-155.0	-38.9	-12.7	-26.2
-154.0	-31.5	-12.7	-18.8
-153.0	-33.3	-12.7	-20.6
-152.0	-35.6	-12.7	-22.9
-151.0	-39.2	-12.7	-26.5
-150.0	-32.1	-12.7	-19.4
-149.0	-36.6	-12.7	-23.9
-148.0	-35.1	-12.7	-22.4
-147.0	-41.2	-12.7	-28.5
-146.0	-35.5	-12.7	-22.8
-145.0	-37.9	-12.7	-25.2
-144.0	-34.3	-12.7	-21.6
-143.0	-37.3	-12.7	-24.6
-142.0	-36.6	-12.7	-23.9
-141.0	-47.9	-12.7	-35.2
-140.0	-33.6	-12.7	-20.9
-139.0	-56.2	-12.7	-43.5
-138.0	-41.8	-12.7	-29.1
-137.0	-46.7	-12.7	-34.0
-136.0	-39.1	-12.7	-26.4
-135.0	-43.1	-12.7	-30.4
-134.0	-54.1	-12.7	-41.4
-133.0	-38.6	-12.7	-25.9
-132.0	-38.1	-12.7	-25.4
-131.0	-38.1	-12.7	-25.4
-130.0	-37.9	-12.7	-25.2
-129.0	-38.4	-12.7	-25.7
-128.0	-37.2	-12.7	-24.5
-127.0	-31.2	-12.7	-18.5
-126.0	-33.5	-12.7	-20.8
-125.0	-32.7	-12.7	-20.0
-124.0	-35.8	-12.7	-23.1
-123.0	-29.4	-12.7	-16.7
-122.0	-31.1	-12.7	-18.4
-121.0	-30.3	-12.7	-17.6
-120.0	-27.5	-12.7	-14.8
-119.0	-28.5	-12.7	-15.8
-118.0	-25.3	-12.7	-12.6

6.15 GHz @ -8.18 dBW / 4 kHz in Co-pol Az

Angle	EIRPsd	Mask	Over Mask
Degrees	dBW/4kHz	dBW/4kHz	dB
0.0	31.8		
1.0	27.6		
2.0	11.7	18.8	-7.1
3.0	-6.5	14.4	-20.8
4.0	-0.8	11.2	-12.1
5.0	2.1	8.8	-6.7
6.0	1.1	6.8	-5.8
7.0	-7.5	5.3	-12.8
8.0	-5.7	5.3	-11.0
9.0	-5.5	5.3	-10.8
10.0	-9.3	4.3	-13.6
11.0	-7.9	3.3	-11.2
12.0	-16.8	2.3	-19.1
13.0	-16.9	1.5	-18.4
14.0	-9.9	0.6	-10.5
15.0	-10.4	-0.1	-10.3
16.0	-12.0	-0.8	-11.2
17.0	-14.4	-1.5	-13.0
18.0	-14.6	-2.1	-12.5
19.0	-21.2	-2.7	-18.5
20.0	-17.5	-3.2	-14.3
21.0	-16.9	-3.8	-13.1
22.0	-17.5	-4.3	-13.2
23.0	-16.0	-4.7	-11.3
24.0	-15.9	-5.2	-10.7
25.0	-22.5	-5.6	-16.9
26.0	-15.1	-6.1	-9.0
27.0	-17.3	-6.5	-10.9
28.0	-20.0	-6.9	-13.1
29.0	-33.4	-7.3	-26.2
30.0	-26.7	-7.6	-19.1
31.0	-21.6	-8.0	-13.6
32.0	-23.3	-8.3	-14.9
33.0	-17.4	-8.7	-8.8
34.0	-20.1	-9.0	-11.2
35.0	-18.2	-9.3	-8.9
36.0	-18.7	-9.6	-9.1
37.0	-22.4	-9.9	-12.5
38.0	-30.2	-10.2	-20.0
39.0	-24.1	-10.5	-13.6
40.0	-23.4	-10.8	-12.6
41.0	-17.3	-11.0	-6.3
42.0	-17.8	-11.3	-6.5
43.0	-15.6	-11.5	-4.1
44.0	-17.8	-11.8	-6.0
45.0	-23.6	-12.0	-11.5
46.0	-32.1	-12.3	-19.8
47.0	-23.5	-12.5	-11.0
48.0	-20.6	-12.7	-7.9
49.0	-17.9	-12.7	-5.2
50.0	-20.8	-12.7	-8.1
51.0	-21.9	-12.7	-9.2
52.0	-25.8	-12.7	-13.1
53.0	-38.4	-12.7	-25.7
54.0	-28.2	-12.7	-15.5
55.0	-21.8	-12.7	-9.1
56.0	-22.1	-12.7	-9.4
57.0	-22.9	-12.7	-10.2
58.0	-22.6	-12.7	-9.9
59.0	-25.2	-12.7	-12.5
60.0	-27.9	-12.7	-15.2
61.0	-23.9	-12.7	-11.2

Orbit Communication - Satcom Products

AL-7108-C, 2.4m Antenna, EIRPsd Data Table
Co-pol Azimuth, -180° to +180° @ 1.0° increment

-117.0	-25.2	-12.7	-12.5
-116.0	-23.9	-12.7	-11.2
-115.0	-23.1	-12.7	-10.4
-114.0	-25.1	-12.7	-12.4
-113.0	-26.1	-12.7	-13.4
-112.0	-29.5	-12.7	-16.8
-111.0	-29.4	-12.7	-16.7
-110.0	-25.4	-12.7	-12.7
-109.0	-21.3	-12.7	-8.6
-108.0	-19.9	-12.7	-7.2
-107.0	-17.8	-12.7	-5.1
-106.0	-18.9	-12.7	-6.2
-105.0	-20.2	-12.7	-7.5
-104.0	-22.4	-12.7	-9.7
-103.0	-23.8	-12.7	-11.1
-102.0	-19.9	-12.7	-7.2
-101.0	-18.1	-12.7	-5.4
-100.0	-17.6	-12.7	-4.9
-99.0	-17.5	-12.7	-4.8
-98.0	-17.1	-12.7	-4.4
-97.0	-17.1	-12.7	-4.4
-96.0	-18.9	-12.7	-6.2
-95.0	-20.0	-12.7	-7.3
-94.0	-19.8	-12.7	-7.1
-93.0	-20.8	-12.7	-8.1
-92.0	-21.7	-12.7	-9.0
-91.0	-22.2	-12.7	-9.5
-90.0	-20.8	-12.7	-8.1
-89.0	-20.6	-12.7	-7.9
-88.0	-22.7	-12.7	-10.0
-87.0	-30.3	-12.7	-17.6
-86.0	-38.4	-12.7	-25.7
-85.0	-25.9	-12.7	-13.2
-84.0	-20.7	-12.7	-8.0
-83.0	-20.2	-12.7	-7.5
-82.0	-20.7	-12.7	-8.0
-81.0	-25.0	-12.7	-12.3
-80.0	-27.8	-12.7	-15.1
-79.0	-26.5	-12.7	-13.8
-78.0	-24.0	-12.7	-11.3
-77.0	-23.7	-12.7	-11.0
-76.0	-27.1	-12.7	-14.4
-75.0	-31.5	-12.7	-18.8
-74.0	-27.3	-12.7	-14.6
-73.0	-22.3	-12.7	-9.6
-72.0	-23.7	-12.7	-11.0
-71.0	-21.6	-12.7	-8.9
-70.0	-25.0	-12.7	-12.3
-69.0	-29.4	-12.7	-16.7
-68.0	-34.6	-12.7	-21.9
-67.0	-30.9	-12.7	-18.2
-66.0	-28.6	-12.7	-15.9
-65.0	-29.9	-12.7	-17.2
-64.0	-29.0	-12.7	-16.3
-63.0	-28.4	-12.7	-15.7
-62.0	-37.5	-12.7	-24.8
-61.0	-27.2	-12.7	-14.5
-60.0	-30.5	-12.7	-17.8
-59.0	-25.1	-12.7	-12.4
-58.0	-28.0	-12.7	-15.3
-57.0	-23.5	-12.7	-10.8
-56.0	-19.9	-12.7	-7.2
-55.0	-22.7	-12.7	-10.0
-54.0	-20.4	-12.7	-7.7
-53.0	-25.6	-12.7	-12.9

62.0	-23.4	-12.7	-10.7
63.0	-23.4	-12.7	-10.7
64.0	-22.9	-12.7	-10.2
65.0	-23.2	-12.7	-10.5
66.0	-24.4	-12.7	-11.7
67.0	-28.9	-12.7	-16.2
68.0	-43.3	-12.7	-30.6
69.0	-39.6	-12.7	-26.9
70.0	-28.4	-12.7	-15.7
71.0	-24.5	-12.7	-11.8
72.0	-22.2	-12.7	-9.5
73.0	-24.1	-12.7	-11.4
74.0	-27.9	-12.7	-15.2
75.0	-32.3	-12.7	-19.6
76.0	-38.0	-12.7	-25.3
77.0	-30.6	-12.7	-17.9
78.0	-35.7	-12.7	-23.0
79.0	-27.9	-12.7	-15.2
80.0	-27.8	-12.7	-15.1
81.0	-32.7	-12.7	-20.0
82.0	-34.7	-12.7	-22.0
83.0	-28.6	-12.7	-15.9
84.0	-23.7	-12.7	-11.0
85.0	-25.6	-12.7	-12.9
86.0	-25.5	-12.7	-12.8
87.0	-22.2	-12.7	-9.5
88.0	-22.1	-12.7	-9.4
89.0	-21.2	-12.7	-8.5
90.0	-21.8	-12.7	-9.1
91.0	-22.8	-12.7	-10.1
92.0	-21.7	-12.7	-9.0
93.0	-20.5	-12.7	-7.8
94.0	-19.6	-12.7	-6.9
95.0	-19.3	-12.7	-6.6
96.0	-20.8	-12.7	-8.1
97.0	-17.6	-12.7	-4.9
98.0	-17.6	-12.7	-4.9
99.0	-20.1	-12.7	-7.4
100.0	-21.3	-12.7	-8.6
101.0	-24.4	-12.7	-11.7
102.0	-31.9	-12.7	-19.2
103.0	-23.3	-12.7	-10.6
104.0	-20.8	-12.7	-8.1
105.0	-18.3	-12.7	-5.6
106.0	-17.3	-12.7	-4.6
107.0	-19.2	-12.7	-6.5
108.0	-21.1	-12.7	-8.4
109.0	-22.2	-12.7	-9.5
110.0	-24.3	-12.7	-11.6
111.0	-22.3	-12.7	-9.6
112.0	-19.6	-12.7	-6.9
113.0	-20.1	-12.7	-7.4
114.0	-19.9	-12.7	-7.2
115.0	-20.4	-12.7	-7.7
116.0	-22.9	-12.7	-10.2
117.0	-21.9	-12.7	-9.2
118.0	-25.7	-12.7	-13.0
119.0	-26.6	-12.7	-13.9
120.0	-29.8	-12.7	-17.1
121.0	-31.7	-12.7	-19.0
122.0	-28.6	-12.7	-15.9
123.0	-39.2	-12.7	-26.5
124.0	-33.8	-12.7	-21.1
125.0	-35.5	-12.7	-22.8
126.0	-38.1	-12.7	-25.4

Orbit Communication - Satcom Products

AL-7108-C, 2.4m Antenna, EIRPsd Data Table
Co-pol Azimuth, -180° to +180° @ 1.0° increment

-52.0	-28.1	-12.7	-15.4
-51.0	-32.1	-12.7	-19.4
-50.0	-29.0	-12.7	-16.3
-49.0	-25.8	-12.7	-13.1
-48.0	-28.6	-12.7	-15.9
-47.0	-32.2	-12.5	-19.7
-46.0	-23.7	-12.3	-11.5
-45.0	-19.3	-12.0	-7.3
-44.0	-17.5	-11.8	-5.7
-43.0	-16.6	-11.5	-5.1
-42.0	-16.8	-11.3	-5.5
-41.0	-16.3	-11.0	-5.3
-40.0	-20.5	-10.8	-9.7
-39.0	-22.3	-10.5	-11.8
-38.0	-45.2	-10.2	-35.0
-37.0	-24.0	-9.9	-14.0
-36.0	-23.8	-9.6	-14.2
-35.0	-22.0	-9.3	-12.7
-34.0	-20.8	-9.0	-11.8
-33.0	-18.2	-8.7	-9.5
-32.0	-22.2	-8.3	-13.9
-31.0	-22.4	-8.0	-14.4
-30.0	-23.2	-7.6	-15.6
-29.0	-23.3	-7.3	-16.0
-28.0	-23.8	-6.9	-16.9
-27.0	-24.3	-6.5	-17.8
-26.0	-17.0	-6.1	-11.0
-25.0	-24.2	-5.6	-18.6
-24.0	-18.7	-5.2	-13.5
-23.0	-18.8	-4.7	-14.0
-22.0	-18.1	-4.3	-13.9
-21.0	-26.3	-3.8	-22.6
-20.0	-19.9	-3.2	-16.7
-19.0	-15.2	-2.7	-12.6
-18.0	-23.1	-2.1	-21.0
-17.0	-15.2	-1.5	-13.7
-16.0	-11.4	-0.8	-10.6
-15.0	-16.0	-0.1	-15.9
-14.0	-13.7	0.6	-14.4
-13.0	-13.6	1.5	-15.1
-12.0	-19.5	2.3	-21.9
-11.0	-9.7	3.3	-13.0
-10.0	-15.3	4.3	-19.6
-9.0	-3.4	5.3	-8.7
-8.0	-4.6	5.3	-9.9
-7.0	-10.4	5.3	-15.7
-6.0	-0.1	6.8	-6.9
-5.0	1.0	8.8	-7.9
-4.0	2.1	11.2	-9.1
-3.0	-10.6	14.4	-25.0
-2.0	4.9	18.8	-13.9
-1.0	26.1		
0.0	31.8		

127.0	-32.8	-12.7	-20.1
128.0	-35.5	-12.7	-22.8
129.0	-39.2	-12.7	-26.5
130.0	-37.9	-12.7	-25.2
131.0	-31.8	-12.7	-19.1
132.0	-31.8	-12.7	-19.1
133.0	-38.5	-12.7	-25.8
134.0	-32.5	-12.7	-19.8
135.0	-39.1	-12.7	-26.4
136.0	-36.7	-12.7	-24.0
137.0	-32.5	-12.7	-19.8
138.0	-36.0	-12.7	-23.3
139.0	-46.9	-12.7	-34.2
140.0	-34.3	-12.7	-21.6
141.0	-31.0	-12.7	-18.3
142.0	-42.3	-12.7	-29.6
143.0	-35.1	-12.7	-22.4
144.0	-32.2	-12.7	-19.5
145.0	-33.2	-12.7	-20.5
146.0	-30.8	-12.7	-18.1
147.0	-38.7	-12.7	-26.0
148.0	-32.8	-12.7	-20.1
149.0	-32.6	-12.7	-19.9
150.0	-34.9	-12.7	-22.2
151.0	-33.9	-12.7	-21.2
152.0	-36.0	-12.7	-23.3
153.0	-33.4	-12.7	-20.7
154.0	-37.9	-12.7	-25.2
155.0	-38.8	-12.7	-26.1
156.0	-35.1	-12.7	-22.4
157.0	-36.1	-12.7	-23.4
158.0	-41.1	-12.7	-28.4
159.0	-39.8	-12.7	-27.1
160.0	-35.5	-12.7	-22.8
161.0	-41.4	-12.7	-28.7
162.0	-34.8	-12.7	-22.1
163.0	-41.5	-12.7	-28.8
164.0	-34.8	-12.7	-22.1
165.0	-36.8	-12.7	-24.1
166.0	-44.3	-12.7	-31.6
167.0	-29.4	-12.7	-16.7
168.0	-37.7	-12.7	-25.0
169.0	-33.9	-12.7	-21.2
170.0	-32.3	-12.7	-19.6
171.0	-34.4	-12.7	-21.7
172.0	-31.8	-12.7	-19.1
173.0	-37.6	-12.7	-24.9
174.0	-37.9	-12.7	-25.2
175.0	-33.4	-12.7	-20.7
176.0	-39.8	-12.7	-27.1
177.0	-35.5	-12.7	-22.8
178.0	-35.9	-12.7	-23.2
179.0	-27.0	-12.7	-14.3

Orbit Communication - Satcom Products

AL-7108-C, 2.4m Antenna, EIRPsd Data Table
Co-pol Azimuth, -10° to +10° @ 0.1° increment

6.15 GHz @ -8.18 dBW / 4 kHz in Co-pol Az

Angle	EIRPsd	Mask	Over Mask
Degrees	dBW/4kHz	dBW/4kHz	dB
-10.0	-15.3	4.3	-19.6
-9.9	-15.0	4.4	-19.5
-9.8	-14.1	4.5	-18.6
-9.7	-12.6	4.6	-17.3
-9.6	-10.9	4.7	-15.6
-9.5	-9.1	4.9	-13.9
-9.4	-7.5	5.0	-12.4
-9.3	-6.1	5.1	-11.2
-9.2	-5.0	5.2	-10.2
-9.1	-4.1	5.3	-9.4
-9.0	-3.4	5.3	-8.7
-8.9	-2.9	5.3	-8.2
-8.8	-2.6	5.3	-7.9
-8.7	-2.5	5.3	-7.8
-8.6	-2.5	5.3	-7.8
-8.5	-2.6	5.3	-7.9
-8.4	-2.9	5.3	-8.2
-8.3	-3.2	5.3	-8.5
-8.2	-3.7	5.3	-9.0
-8.1	-4.1	5.3	-9.4
-8.0	-4.6	5.3	-9.9
-7.9	-5.0	5.3	-10.3
-7.8	-5.5	5.3	-10.8
-7.7	-6.0	5.3	-11.3
-7.6	-6.5	5.3	-11.8
-7.5	-7.2	5.3	-12.5
-7.4	-8.0	5.3	-13.3
-7.3	-8.8	5.3	-14.1
-7.2	-9.7	5.3	-15.0
-7.1	-10.3	5.3	-15.6
-7.0	-10.4	5.3	-15.7
-6.9	-9.6	5.3	-14.9
-6.8	-8.1	5.5	-13.6
-6.7	-6.7	5.6	-12.3
-6.6	-5.2	5.8	-11.0
-6.5	-3.9	6.0	-9.9
-6.4	-2.8	6.1	-8.9
-6.3	-1.9	6.3	-8.2
-6.2	-1.1	6.5	-7.6
-6.1	-0.5	6.7	-7.2
-6.0	-0.1	6.8	-6.9
-5.9	0.2	7.0	-6.8
-5.8	0.4	7.2	-6.9
-5.7	0.4	7.4	-7.0
-5.6	0.3	7.6	-7.3
-5.5	0.2	7.8	-7.6
-5.4	0.1	8.0	-7.8
-5.3	0.1	8.2	-8.1
-5.2	0.2	8.4	-8.2
-5.1	0.5	8.6	-8.1
-5.0	1.0	8.8	-7.9
-4.9	1.5	9.0	-7.6
-4.8	2.0	9.3	-7.2
-4.7	2.6	9.5	-6.9
-4.6	3.0	9.7	-6.8
-4.5	3.3	10.0	-6.7
-4.4	3.4	10.2	-6.8
-4.3	3.4	10.5	-7.1
-4.2	3.2	10.7	-7.6
-4.1	2.8	11.0	-8.2
-4.0	2.1	11.2	-9.1
-3.9	1.3	11.5	-10.2

6.15 GHz @ -8.18 dBW / 4 kHz in Co-pol Az

Angle	EIRPsd	Mask	Over Mask
Degrees	dBW/4kHz	dBW/4kHz	dB
0.0	31.8		
0.1	31.8		
0.2	31.7		
0.3	31.6		
0.4	31.3		
0.5	30.9		
0.6	30.4		
0.7	29.9		
0.8	29.2		
0.9	28.4		
1.0	27.6		
1.1	26.6		
1.2	25.5		
1.3	24.2		
1.4	22.9		
1.5	21.3	21.9	-0.6
1.6	19.7	21.2	-1.5
1.7	17.9	20.5	-2.6
1.8	15.9	19.9	-4.0
1.9	13.8	19.3	-5.5
2.0	11.7	18.8	-7.1
2.1	9.3	18.2	-9.0
2.2	6.9	17.7	-10.8
2.3	4.7	17.3	-12.5
2.4	2.8	16.8	-14.0
2.5	1.0	16.4	-15.3
2.6	-0.5	15.9	-16.5
2.7	-2.0	15.5	-17.5
2.8	-3.4	15.1	-18.5
2.9	-4.9	14.7	-19.6
3.0	-6.5	14.4	-20.8
3.1	-8.2	14.0	-22.3
3.2	-10.2	13.7	-23.9
3.3	-12.3	13.3	-25.7
3.4	-13.9	13.0	-27.0
3.5	-12.9	12.7	-25.6
3.6	-9.9	12.4	-22.3
3.7	-7.0	12.1	-19.0
3.8	-4.4	11.8	-16.2
3.9	-2.4	11.5	-13.9
4.0	-0.8	11.2	-12.1
4.1	0.4	11.0	-10.6
4.2	1.4	10.7	-9.3
4.3	2.0	10.5	-8.4
4.4	2.5	10.2	-7.7
4.5	2.7	10.0	-7.2
4.6	2.8	9.7	-6.9
4.7	2.8	9.5	-6.7
4.8	2.6	9.3	-6.7
4.9	2.4	9.0	-6.7
5.0	2.1	8.8	-6.7
5.1	1.9	8.6	-6.7
5.2	1.7	8.4	-6.7
5.3	1.7	8.2	-6.5
5.4	1.7	8.0	-6.3
5.5	1.7	7.8	-6.1
5.6	1.7	7.6	-5.9
5.7	1.7	7.4	-5.7
5.8	1.6	7.2	-5.6
5.9	1.4	7.0	-5.6
6.0	1.1	6.8	-5.8
6.1	0.6	6.7	-6.0

Orbit Communication - Satcom Products

AL-7108-C, 2.4m Antenna, EIRPsd Data Table

Co-pol Azimuth, -10° to +10° @ 0.1° increment

-3.8	0.2	11.8	-11.6
-3.7	-1.1	12.1	-13.2
-3.6	-2.7	12.4	-15.1
-3.5	-4.6	12.7	-17.2
-3.4	-6.7	13.0	-19.7
-3.3	-8.8	13.3	-22.1
-3.2	-10.6	13.7	-24.2
-3.1	-11.2	14.0	-25.2
-3.0	-10.6	14.4	-25.0
-2.9	-9.3	14.7	-24.1
-2.8	-8.0	15.1	-23.1
-2.7	-7.0	15.5	-22.5
-2.6	-6.3	15.9	-22.2
-2.5	-6.1	16.4	-22.5
-2.4	-6.2	16.8	-23.0
-2.3	-5.5	17.3	-22.7
-2.2	-2.7	17.7	-20.5
-2.1	1.1	18.2	-17.2
-2.0	4.9	18.8	-13.9
-1.9	8.5	19.3	-10.9
-1.8	11.4	19.9	-8.5
-1.7	13.9	20.5	-6.6
-1.6	16.3	21.2	-4.9
-1.5	18.5	21.9	-3.4
-1.4	20.3		
-1.3	22.0		
-1.2	23.5		
-1.1	24.9		
-1.0	26.1		
-0.9	27.2		
-0.8	28.1		
-0.7	28.9		
-0.6	29.7		
-0.5	30.3		
-0.4	30.8		
-0.3	31.2		
-0.2	31.5		
-0.1	31.7		
0.0	31.8		

6.2	0.0	6.5	-6.4
6.3	-0.7	6.3	-7.0
6.4	-1.5	6.1	-7.7
6.5	-2.6	6.0	-8.5
6.6	-3.7	5.8	-9.5
6.7	-4.8	5.6	-10.5
6.8	-6.0	5.5	-11.4
6.9	-6.9	5.3	-12.2
7.0	-7.5	5.3	-12.8
7.1	-7.8	5.3	-13.1
7.2	-7.7	5.3	-13.0
7.3	-7.5	5.3	-12.8
7.4	-7.2	5.3	-12.5
7.5	-6.9	5.3	-12.2
7.6	-6.7	5.3	-12.0
7.7	-6.5	5.3	-11.8
7.8	-6.2	5.3	-11.5
7.9	-6.0	5.3	-11.3
8.0	-5.7	5.3	-11.0
8.1	-5.5	5.3	-10.8
8.2	-5.2	5.3	-10.5
8.3	-4.9	5.3	-10.2
8.4	-4.7	5.3	-10.0
8.5	-4.6	5.3	-9.9
8.6	-4.6	5.3	-9.9
8.7	-4.6	5.3	-9.9
8.8	-4.8	5.3	-10.1
8.9	-5.1	5.3	-10.4
9.0	-5.5	5.3	-10.8
9.1	-6.0	5.3	-11.3
9.2	-6.6	5.2	-11.8
9.3	-7.2	5.1	-12.2
9.4	-7.7	5.0	-12.7
9.5	-8.3	4.9	-13.1
9.6	-8.7	4.7	-13.5
9.7	-9.1	4.6	-13.7
9.8	-9.2	4.5	-13.8
9.9	-9.3	4.4	-13.7
10.0	-9.3	4.3	-13.6

Orbit Communication - Satcom Products

AL-7108-C, 2.4m Antenna, EIRPsd Data Table
Co-pol Elevation, -30° to +30° @ 0.5° increment

6.15 GHz @ -8.18 dBW / 4 kHz in Co-pol EI

Angle	EIRPsd	Mask	Over Mask
Degrees	dBW/4kHz	dBW/4kHz	dB
-30.0	-23.2	-7.6	-15.6
-29.5	-20.9	-7.4	-13.5
-29.0	-23.3	-7.3	-16.0
-28.5	-29.2	-7.1	-22.1
-28.0	-23.8	-6.9	-16.9
-27.5	-22.0	-6.7	-15.3
-27.0	-24.3	-6.5	-17.8
-26.5	-19.8	-6.3	-13.5
-26.0	-17.0	-6.1	-11.0
-25.5	-18.5	-5.9	-12.6
-25.0	-24.2	-5.6	-18.6
-24.5	-21.9	-5.4	-16.5
-24.0	-18.7	-5.2	-13.5
-23.5	-17.6	-5.0	-12.7
-23.0	-18.8	-4.7	-14.0
-22.5	-20.5	-4.5	-16.0
-22.0	-18.2	-4.3	-13.9
-21.5	-19.5	-4.0	-15.5
-21.0	-26.3	-3.8	-22.6
-20.5	-29.4	-3.5	-25.9
-20.0	-19.9	-3.2	-16.7
-19.5	-15.5	-3.0	-12.5
-19.0	-15.2	-2.7	-12.6
-18.5	-20.2	-2.4	-17.8
-18.0	-23.1	-2.1	-21.0
-17.5	-29.8	-1.8	-28.0
-17.0	-15.2	-1.5	-13.7
-16.5	-10.6	-1.1	-9.5
-16.0	-11.5	-0.8	-10.6
-15.5	-15.3	-0.5	-14.8
-15.0	-16.0	-0.1	-15.9
-14.5	-15.0	0.3	-15.2
-14.0	-13.7	0.6	-14.4
-13.5	-16.1	1.0	-17.1
-13.0	-13.6	1.5	-15.1
-12.5	-14.1	1.9	-16.0
-12.0	-19.6	2.3	-21.9
-11.5	-10.0	2.8	-12.7
-11.0	-9.7	3.3	-13.0
-10.5	-13.4	3.8	-17.2
-10.0	-15.3	4.3	-19.6
-9.5	-9.1	4.9	-13.9
-9.0	-3.4	5.4	-8.9
-8.5	-2.7	6.1	-8.7
-8.0	-4.6	6.7	-11.3
-7.5	-7.2	7.4	-14.6
-7.0	-10.4	8.2	-18.5
-6.5	-3.9	9.0	-12.9
-6.0	-0.1	9.8	-9.9
-5.5	0.2	10.8	-10.6
-5.0	1.0	11.8	-10.9
-4.5	3.3	13.0	-9.7
-4.0	2.1	14.2	-12.1
-3.5	-4.6	15.7	-20.3
-3.0	-10.6	17.4	-28.0
-2.5	-6.1		
-2.0	4.9		
-1.5	18.5		
-1.0	26.1		
-0.5	30.3		
0.0	31.8		

6.15 GHz @ -8.18 dBW / 4 kHz in Co-pol EI

Angle	EIRPsd	Mask	Over Mask
Degrees	dBW/4kHz	dBW/4kHz	dB
0.0	31.8		
0.5	30.9		
1.0	27.6		
1.5	21.3		
2.0	11.7		
2.5	1.0		
3.0	-6.5	17.4	-23.9
3.5	-12.9	15.7	-28.6
4.0	-0.8	14.2	-15.1
4.5	2.7	13.0	-10.2
5.0	2.1	11.8	-9.7
5.5	1.7	10.8	-9.1
6.0	1.1	9.8	-8.8
6.5	-2.6	9.0	-11.5
7.0	-7.5	8.2	-15.7
7.5	-6.9	7.4	-14.4
8.0	-5.7	6.7	-12.5
8.5	-4.6	6.1	-10.7
9.0	-5.5	5.4	-11.0
9.5	-8.3	4.9	-13.1
10.0	-9.3	4.3	-13.6
10.5	-8.7	3.8	-12.5
11.0	-7.9	3.3	-11.2
11.5	-9.5	2.8	-12.2
12.0	-16.8	2.3	-19.1
12.5	-22.6	1.9	-24.5
13.0	-16.9	1.5	-18.4
13.5	-13.0	1.0	-14.1
14.0	-9.9	0.6	-10.5
14.5	-9.0	0.3	-9.3
15.0	-10.4	-0.1	-10.3
15.5	-11.9	-0.5	-11.4
16.0	-12.0	-0.8	-11.2
16.5	-13.7	-1.1	-12.6
17.0	-14.5	-1.5	-13.0
17.5	-14.2	-1.8	-12.5
18.0	-14.6	-2.1	-12.5
18.5	-15.9	-2.4	-13.5
19.0	-21.2	-2.7	-18.5
19.5	-19.8	-3.0	-16.9
20.0	-17.5	-3.2	-14.3
20.5	-18.0	-3.5	-14.5
21.0	-16.9	-3.8	-13.1
21.5	-17.2	-4.0	-13.2
22.0	-17.5	-4.3	-13.2
22.5	-16.5	-4.5	-12.0
23.0	-16.1	-4.7	-11.3
23.5	-15.4	-5.0	-10.4
24.0	-15.9	-5.2	-10.7
24.5	-19.3	-5.4	-13.8
25.0	-22.5	-5.6	-16.9
25.5	-18.0	-5.9	-12.1
26.0	-15.1	-6.1	-9.1
26.5	-15.4	-6.3	-9.1
27.0	-17.3	-6.5	-10.9
27.5	-18.4	-6.7	-11.7
28.0	-20.0	-6.9	-13.1
28.5	-26.1	-7.1	-19.0
29.0	-33.4	-7.3	-26.2
29.5	-26.2	-7.4	-18.7
30.0	-26.8	-7.6	-19.1

Orbit Communication - Satcom Products

AL-7108-C, 2.4m Antenna, EIRPsd Data Table
Co-pol Elevation, -10° to +10° @ 0.1° increment

6.15 GHz @ -8.18 dBW / 4 kHz in Co-pol EI

Angle	EIRPsd	Mask	Over Mask
Degrees	dBW/4kHz	dBW/4kHz	dB
-10.0	-9.3	4.3	-13.6
-9.9	-9.3	4.4	-13.7
-9.8	-9.2	4.5	-13.8
-9.7	-9.1	4.6	-13.7
-9.6	-8.7	4.7	-13.5
-9.5	-8.3	4.9	-13.1
-9.4	-7.7	5.0	-12.7
-9.3	-7.2	5.1	-12.2
-9.2	-6.6	5.2	-11.8
-9.1	-6.0	5.3	-11.3
-9.0	-5.5	5.4	-11.0
-8.9	-5.1	5.6	-10.7
-8.8	-4.8	5.7	-10.5
-8.7	-4.6	5.8	-10.5
-8.6	-4.6	5.9	-10.5
-8.5	-4.6	6.1	-10.7
-8.4	-4.7	6.2	-10.9
-8.3	-5.0	6.3	-11.3
-8.2	-5.2	6.5	-11.6
-8.1	-5.5	6.6	-12.0
-8.0	-5.7	6.7	-12.5
-7.9	-6.0	6.9	-12.9
-7.8	-6.2	7.0	-13.2
-7.7	-6.5	7.1	-13.6
-7.6	-6.7	7.3	-14.0
-7.5	-6.9	7.4	-14.4
-7.4	-7.2	7.6	-14.8
-7.3	-7.5	7.7	-15.2
-7.2	-7.8	7.9	-15.6
-7.1	-7.8	8.0	-15.8
-7.0	-7.5	8.2	-15.7
-6.9	-6.9	8.3	-15.2
-6.8	-6.0	8.5	-14.4
-6.7	-4.8	8.6	-13.5
-6.6	-3.7	8.8	-12.5
-6.5	-2.6	9.0	-11.5
-6.4	-1.5	9.1	-10.7
-6.3	-0.7	9.3	-10.0
-6.2	0.0	9.5	-9.4
-6.1	0.6	9.7	-9.0
-6.0	1.1	9.8	-8.8
-5.9	1.4	10.0	-8.6
-5.8	1.6	10.2	-8.6
-5.7	1.7	10.4	-8.7
-5.6	1.7	10.6	-8.9
-5.5	1.7	10.8	-9.1
-5.4	1.6	11.0	-9.3
-5.3	1.7	11.2	-9.5
-5.2	1.7	11.4	-9.7
-5.1	1.9	11.6	-9.7
-5.0	2.1	11.8	-9.7
-4.9	2.4	12.0	-9.7
-4.8	2.6	12.3	-9.7
-4.7	2.8	12.5	-9.7
-4.6	2.8	12.7	-9.9
-4.5	2.7	13.0	-10.2
-4.4	2.5	13.2	-10.7
-4.3	2.0	13.5	-11.4
-4.2	1.4	13.7	-12.3
-4.1	0.4	14.0	-13.6
-4.0	-0.8	14.2	-15.1
-3.9	-2.4	14.5	-16.9

6.15 GHz @ -8.18 dBW / 4 kHz in Co-pol EI

Angle	EIRPsd	Mask	Over Mask
Degrees	dBW/4kHz	dBW/4kHz	dB
0.0	31.8		
0.1	31.7		
0.2	31.5		
0.3	31.2		
0.4	30.8		
0.5	30.3		
0.6	29.7		
0.7	28.9		
0.8	28.1		
0.9	27.2		
1.0	26.1		
1.1	24.9		
1.2	23.5		
1.3	22.0		
1.4	20.3		
1.5	18.5		
1.6	16.3		
1.7	13.9		
1.8	11.4		
1.9	8.5		
2.0	4.9		
2.1	1.1		
2.2	-2.7		
2.3	-5.5		
2.4	-6.2		
2.5	-6.1		
2.6	-6.3		
2.7	-7.0		
2.8	-8.0		
2.9	-9.3		
3.0	-10.6	17.4	-28.0
3.1	-11.2	17.0	-28.2
3.2	-10.6	16.7	-27.3
3.3	-8.8	16.3	-25.2
3.4	-6.7	16.0	-22.7
3.5	-4.6	15.7	-20.3
3.6	-2.7	15.4	-18.1
3.7	-1.1	15.1	-16.2
3.8	0.2	14.8	-14.6
3.9	1.3	14.5	-13.2
4.0	2.1	14.2	-12.1
4.1	2.8	14.0	-11.2
4.2	3.2	13.7	-10.6
4.3	3.4	13.5	-10.1
4.4	3.4	13.2	-9.8
4.5	3.3	13.0	-9.7
4.6	3.0	12.7	-9.8
4.7	2.6	12.5	-9.9
4.8	2.0	12.3	-10.2
4.9	1.5	12.0	-10.6
5.0	1.0	11.8	-10.9
5.1	0.5	11.6	-11.1
5.2	0.2	11.4	-11.2
5.3	0.1	11.2	-11.1
5.4	0.1	11.0	-10.8
5.5	0.2	10.8	-10.6
5.6	0.3	10.6	-10.3
5.7	0.4	10.4	-10.0
5.8	0.4	10.2	-9.9
5.9	0.2	10.0	-9.8
6.0	-0.1	9.8	-9.9
6.1	-0.5	9.7	-10.2

Orbit Communication - Satcom Products

AL-7108-C, 2.4m Antenna, EIRPsd Data Table
Co-pol Elevation, -10° to +10° @ 0.1° increment

-3.8	-4.4	14.8	-19.2
-3.7	-7.0	15.1	-22.1
-3.6	-9.9	15.4	-25.3
-3.5	-12.9	15.7	-28.6
-3.4	-13.9	16.0	-30.0
-3.3	-12.3	16.3	-28.7
-3.2	-10.2	16.7	-26.9
-3.1	-8.2	17.0	-25.3
-3.0	-6.5	17.4	-23.9
-2.9	-4.9		
-2.8	-3.4		
-2.7	-2.0		
-2.6	-0.6		
-2.5	1.0		
-2.4	2.8		
-2.3	4.7		
-2.2	6.9		
-2.1	9.3		
-2.0	11.7		
-1.9	13.8		
-1.8	15.9		
-1.7	17.9		
-1.6	19.7		
-1.5	21.3		
-1.4	22.9		
-1.3	24.2		
-1.2	25.5		
-1.1	26.6		
-1.0	27.6		
-0.9	28.4		
-0.8	29.2		
-0.7	29.9		
-0.6	30.4		
-0.5	30.9		
-0.4	31.3		
-0.3	31.6		
-0.2	31.7		
-0.1	31.8		
0.0	31.8		

6.2	-1.1	9.5	-10.6
6.3	-1.9	9.3	-11.2
6.4	-2.8	9.1	-11.9
6.5	-3.9	9.0	-12.9
6.6	-5.2	8.8	-14.0
6.7	-6.7	8.6	-15.3
6.8	-8.2	8.5	-16.6
6.9	-9.6	8.3	-17.9
7.0	-10.4	8.2	-18.5
7.1	-10.3	8.0	-18.4
7.2	-9.7	7.9	-17.6
7.3	-8.8	7.7	-16.6
7.4	-8.0	7.6	-15.5
7.5	-7.2	7.4	-14.6
7.6	-6.6	7.3	-13.8
7.7	-6.0	7.1	-13.1
7.8	-5.5	7.0	-12.5
7.9	-5.0	6.9	-11.9
8.0	-4.6	6.7	-11.3
8.1	-4.1	6.6	-10.7
8.2	-3.7	6.5	-10.1
8.3	-3.3	6.3	-9.6
8.4	-2.9	6.2	-9.1
8.5	-2.7	6.1	-8.7
8.6	-2.5	5.9	-8.4
8.7	-2.5	5.8	-8.3
8.8	-2.7	5.7	-8.3
8.9	-2.9	5.6	-8.5
9.0	-3.4	5.4	-8.9
9.1	-4.1	5.3	-9.4
9.2	-5.0	5.2	-10.2
9.3	-6.1	5.1	-11.2
9.4	-7.5	5.0	-12.5
9.5	-9.1	4.9	-13.9
9.6	-10.9	4.7	-15.6
9.7	-12.6	4.6	-17.3
9.8	-14.1	4.5	-18.6
9.9	-15.1	4.4	-19.5
10.0	-15.3	4.3	-19.6

Orbit Communication - Satcom Products

AL-7108-C, 2.4m Antenna, EIRPsd Data Table
X-pol Azimuth, -10° to +10° @ 0.1° increment

6.15 GHz @ -8.18 dBW / 4 kHz in X-pol Az

Angle	EIRPsd	Mask	Over Mask
Degrees	dBW/4kHz	dBW/4kHz	dB
-10.0	-10.5	-4.7	-5.8
-9.9	-10.6	-4.7	-5.9
-9.8	-10.9	-4.7	-6.2
-9.7	-11.3	-4.7	-6.6
-9.6	-11.9	-4.7	-7.2
-9.5	-12.5	-4.7	-7.8
-9.4	-13.3	-4.7	-8.6
-9.3	-14.1	-4.7	-9.4
-9.2	-14.9	-4.7	-10.2
-9.1	-15.4	-4.7	-10.7
-9.0	-15.7	-4.7	-11.0
-8.9	-15.4	-4.7	-10.7
-8.8	-14.8	-4.7	-10.1
-8.7	-13.9	-4.7	-9.2
-8.6	-12.7	-4.7	-8.0
-8.5	-11.4	-4.7	-6.7
-8.4	-10.1	-4.7	-5.4
-8.3	-9.0	-4.7	-4.3
-8.2	-8.0	-4.7	-3.3
-8.1	-7.1	-4.7	-2.4
-8.0	-6.3	-4.7	-1.6
-7.9	-5.7	-4.7	-1.0
-7.8	-5.3	-4.7	-0.6
-7.7	-4.9	-4.7	-0.2
-7.6	-4.7	-4.7	0.0
-7.5	-4.7	-4.7	0.0
-7.4	-4.8	-4.7	-0.1
-7.3	-5.1	-4.7	-0.4
-7.2	-5.5	-4.7	-0.8
-7.1	-6.0	-4.7	-1.3
-7.0	-6.6	-4.7	-1.9
-6.9	-7.4	-4.7	-2.7
-6.8	-8.2	-4.5	-3.6
-6.7	-8.9	-4.4	-4.6
-6.6	-9.5	-4.2	-5.3
-6.5	-9.9	-4.0	-5.9
-6.4	-10.2	-3.9	-6.3
-6.3	-10.3	-3.7	-6.6
-6.2	-10.3	-3.5	-6.8
-6.1	-10.4	-3.3	-7.0
-6.0	-10.5	-3.2	-7.4
-5.9	-10.9	-3.0	-7.9
-5.8	-11.4	-2.8	-8.6
-5.7	-12.1	-2.6	-9.5
-5.6	-13.1	-2.4	-10.7
-5.5	-14.3	-2.2	-12.1
-5.4	-15.9	-2.0	-13.9
-5.3	-17.9	-1.8	-16.1
-5.2	-20.4	-1.6	-18.8
-5.1	-22.9	-1.4	-21.5
-5.0	-23.7	-1.2	-22.6
-4.9	-21.8	-1.0	-20.8
-4.8	-19.1	-0.7	-18.4
-4.7	-17.0	-0.5	-16.5
-4.6	-15.4	-0.3	-15.1
-4.5	-14.0	0.0	-13.9
-4.4	-12.9	0.2	-13.1
-4.3	-12.3	0.5	-12.7
-4.2	-12.0	0.7	-12.7
-4.1	-12.0	1.0	-13.0
-4.0	-12.4	1.2	-13.6
-3.9	-13.0	1.5	-14.5

6.15 GHz @ -8.18 dBW / 4 kHz in X-pol Az

Angle	EIRPsd	Mask	Over Mask
Degrees	dBW/4kHz	dBW/4kHz	dB
0.0	-6.9		
0.1	-4.8		
0.2	-2.6		
0.3	-0.9		
0.4	0.4		
0.5	1.2		
0.6	1.6		
0.7	1.8		
0.8	1.6		
0.9	1.2		
1.0	0.5		
1.1	-0.5		
1.2	-1.9		
1.3	-3.6		
1.4	-5.7		
1.5	-8.0		
1.6	-9.1		
1.7	-8.3		
1.8	-6.5	9.9	-16.4
1.9	-4.7	9.3	-14.0
2.0	-3.3	8.8	-12.1
2.1	-2.3	8.2	-10.6
2.2	-1.7	7.7	-9.4
2.3	-1.3	7.3	-8.6
2.4	-1.2	6.8	-8.0
2.5	-1.4	6.4	-7.8
2.6	-1.8	5.9	-7.7
2.7	-2.5	5.5	-8.0
2.8	-3.3	5.1	-8.5
2.9	-4.4	4.7	-9.2
3.0	-5.8	4.4	-10.1
3.1	-7.4	4.0	-11.4
3.2	-9.3	3.7	-12.9
3.3	-11.3	3.3	-14.6
3.4	-13.6	3.0	-16.6
3.5	-15.9	2.7	-18.6
3.6	-17.7	2.4	-20.1
3.7	-19.1	2.1	-21.2
3.8	-20.4	1.8	-22.2
3.9	-22.5	1.5	-24.0
4.0	-25.6	1.2	-26.9
4.1	-31.9	1.0	-32.9
4.2	-33.6	0.7	-34.3
4.3	-25.5	0.5	-26.0
4.4	-21.1	0.2	-21.4
4.5	-18.4	0.0	-18.4
4.6	-16.6	-0.3	-16.3
4.7	-15.6	-0.5	-15.1
4.8	-15.1	-0.7	-14.3
4.9	-15.1	-1.0	-14.1
5.0	-15.8	-1.2	-14.6
5.1	-17.0	-1.4	-15.6
5.2	-18.5	-1.6	-16.9
5.3	-19.7	-1.8	-17.9
5.4	-18.6	-2.0	-16.6
5.5	-15.9	-2.2	-13.6
5.6	-13.4	-2.4	-11.0
5.7	-11.5	-2.6	-8.9
5.8	-9.8	-2.8	-7.0
5.9	-8.4	-3.0	-5.4
6.0	-7.5	-3.2	-4.3
6.1	-6.8	-3.3	-3.5

Orbit Communication - Satcom Products

AL-7108-C, 2.4m Antenna, EIRPsd Data Table
X-pol Azimuth, -10° to +10° @ 0.1° increment

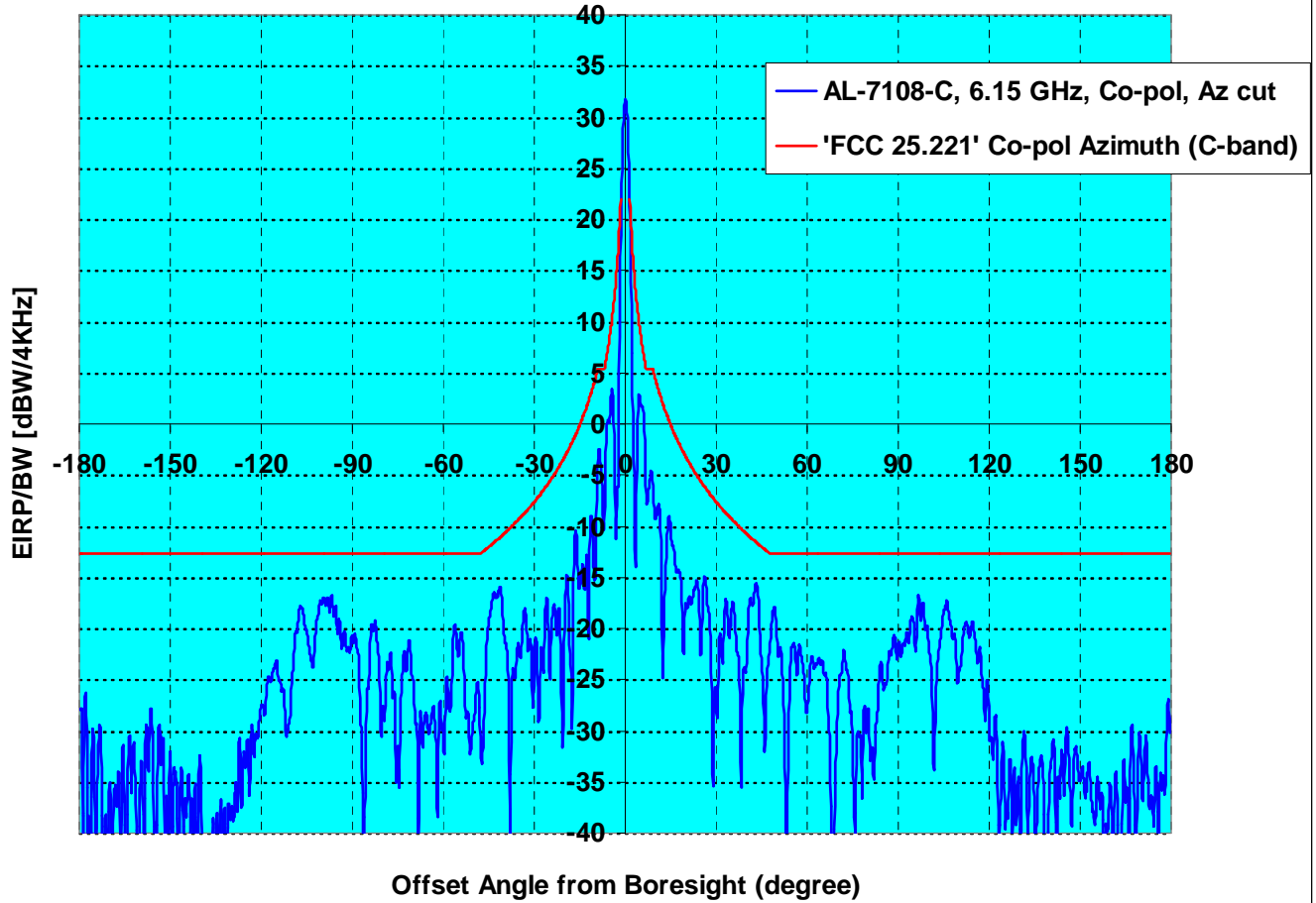
-3.8	-13.9	1.8	-15.7
-3.7	-14.4	2.1	-16.5
-3.6	-13.9	2.4	-16.3
-3.5	-12.1	2.7	-14.8
-3.4	-9.8	3.0	-12.9
-3.3	-7.7	3.3	-11.0
-3.2	-5.7	3.7	-9.3
-3.1	-4.0	4.0	-8.0
-3.0	-2.6	4.4	-7.0
-2.9	-1.5	4.7	-6.2
-2.8	-0.5	5.1	-5.6
-2.7	0.4	5.5	-5.2
-2.6	1.0	5.9	-4.9
-2.5	1.6	6.4	-4.8
-2.4	2.1	6.8	-4.7
-2.3	2.5	7.3	-4.7
-2.2	3.0	7.7	-4.8
-2.1	3.4	8.2	-4.8
-2.0	3.9	8.8	-4.9
-1.9	4.4	9.3	-4.9
-1.8	4.9	9.9	-5.0
-1.7	5.3		
-1.6	5.8		
-1.5	6.1		
-1.4	6.4		
-1.3	6.5		
-1.2	6.5		
-1.1	6.4		
-1.0	6.2		
-0.9	5.8		
-0.8	5.1		
-0.7	4.3		
-0.6	3.3		
-0.5	1.9		
-0.4	0.0		
-0.3	-2.2		
-0.2	-4.8		
-0.1	-7.2		
0.0	-6.9		

6.2	-6.4	-3.5	-2.9
6.3	-6.2	-3.7	-2.6
6.4	-6.3	-3.9	-2.4
6.5	-6.6	-4.0	-2.5
6.6	-7.0	-4.2	-2.8
6.7	-7.4	-4.4	-3.1
6.8	-8.0	-4.5	-3.5
6.9	-8.7	-4.7	-4.1
7.0	-9.4	-4.7	-4.7
7.1	-9.8	-4.7	-5.1
7.2	-9.8	-4.7	-5.1
7.3	-9.8	-4.7	-5.1
7.4	-9.8	-4.7	-5.1
7.5	-9.6	-4.7	-4.9
7.6	-9.6	-4.7	-4.9
7.7	-9.7	-4.7	-5.0
7.8	-9.9	-4.7	-5.2
7.9	-10.3	-4.7	-5.6
8.0	-11.0	-4.7	-6.3
8.1	-11.9	-4.7	-7.2
8.2	-12.9	-4.7	-8.2
8.3	-14.1	-4.7	-9.4
8.4	-15.5	-4.7	-10.8
8.5	-17.1	-4.7	-12.4
8.6	-18.7	-4.7	-14.0
8.7	-20.1	-4.7	-15.4
8.8	-21.0	-4.7	-16.3
8.9	-21.6	-4.7	-16.9
9.0	-21.3	-4.7	-16.6
9.1	-20.3	-4.7	-15.6
9.2	-19.1	-4.7	-14.4
9.3	-17.7	-4.7	-13.0
9.4	-16.3	-4.7	-11.6
9.5	-15.1	-4.7	-10.4
9.6	-13.9	-4.7	-9.2
9.7	-13.0	-4.7	-8.3
9.8	-12.2	-4.7	-7.5
9.9	-11.5	-4.7	-6.8
10.0	-11.1	-4.7	-6.4

Orbit Communication - Satcom Products

AL-7108-C, 2.4m Antenna, EIRPsd, Co-pol, Azimuth

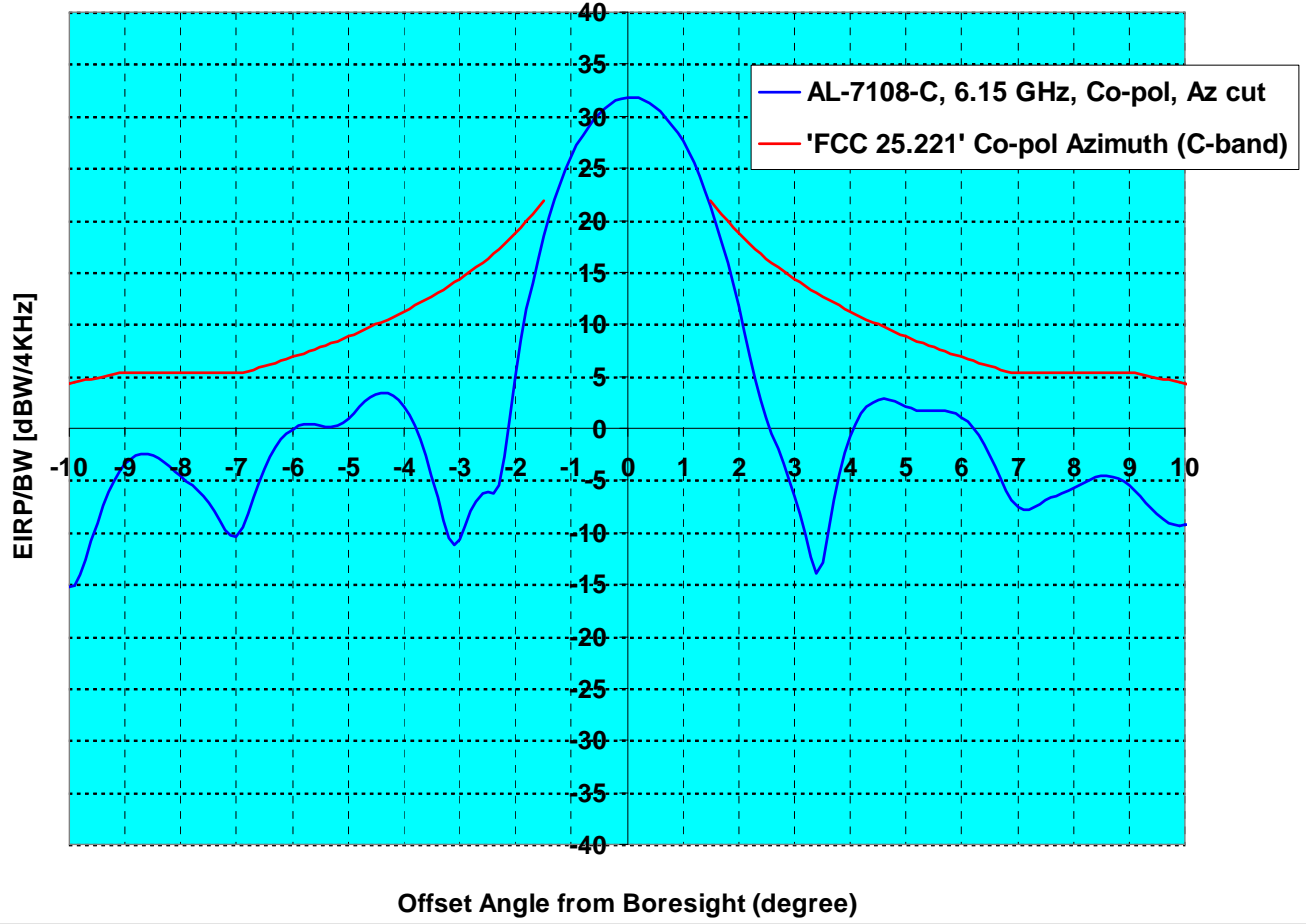
'FCC 25.221' Co-pol Guide at C-band for EIRP/BW of -8.18 dBW/4KHz to Input
and 31.81 dBW/4KHz in the Output of AL-7108-C Antenna at 6.15 GHz in Az cut
Min BW of 373 KHz in case of 20W BUC



Configuration System, Frequency, Polarization, Plane	Input EIRPsd dBW/4KHz	Antenna Gain dBi	Peak Excursions dB		Over Mask %
			± (1.5° to 7°)	± (7° to 180°)	
AL-7108-C, 6.15 GHz, Co-pol, Az cut	-8.19	39.99	-0.56	-4.01	0.00

Orbit Communication - Satcom Products
AL-7108-C, 2.4m Antenna, EIRPsd, Co-pol, Azimuth

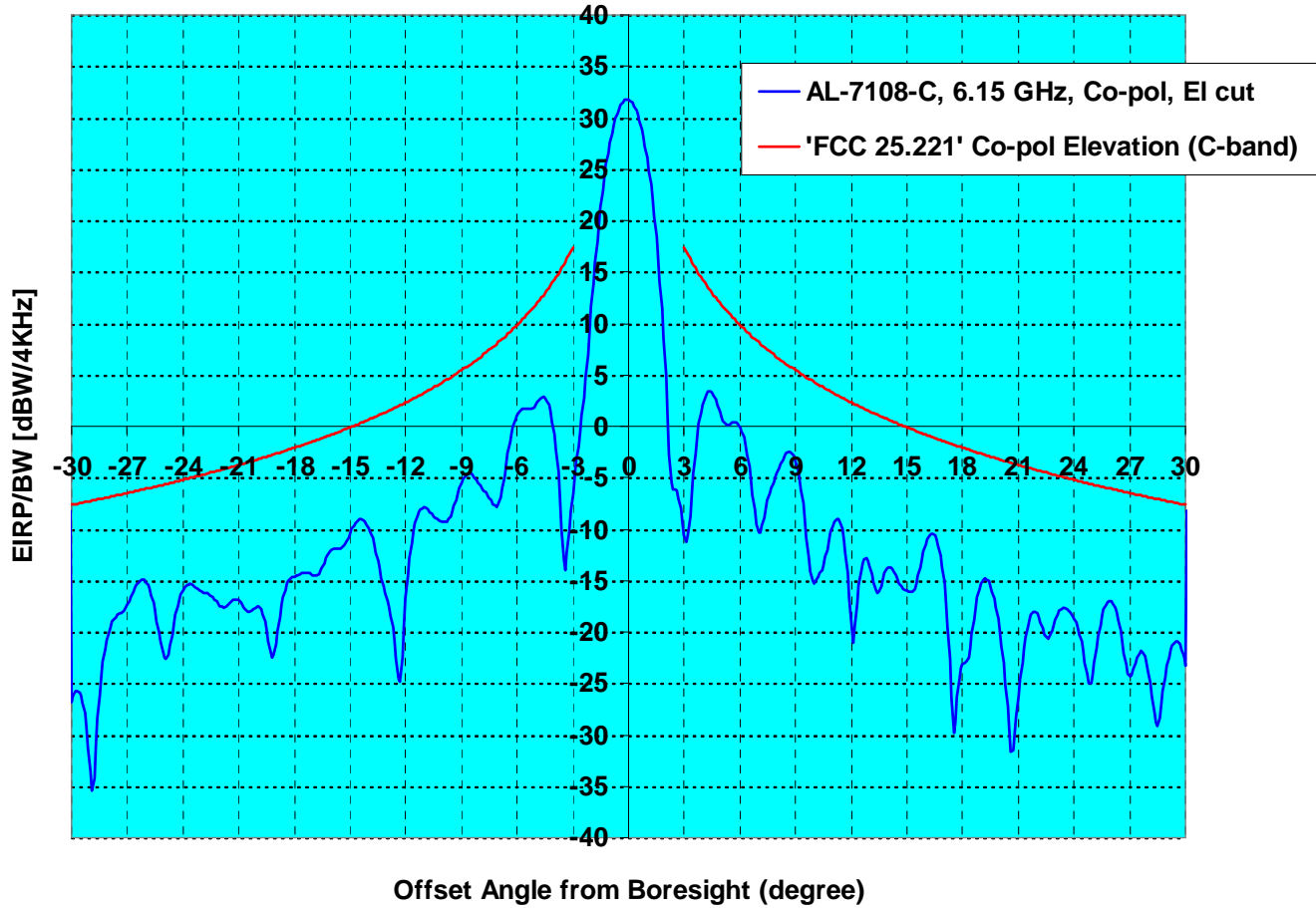
**'FCC 25.221' Co-pol Guide at C-band for EIRP/BW of -8.18 dBW/4KHz to Input
and 31.81 dBW/4KHz in the Output of AL-7108-C Antenna at 6.15 GHz in Az cut**
Min BW of 373 KHz in case of 20W BUC



Configuration	Input EIRPsd	Antenna Gain	Peak Excursions dB		Over Mask
System, Frequency, Polarization, Plane	dBW/4KHz	dBi	± (1.5° to 7°)	± (7° to 180°)	%
AL-7108-C, 6.15 GHz, Co-pol, Az cut	-8.19	39.99	-0.56	-4.01	0.00

Orbit Communication - Satcom Products
AL-7108-C, 2.4m Antenna, EIRPsd, Co-pol, Elevation

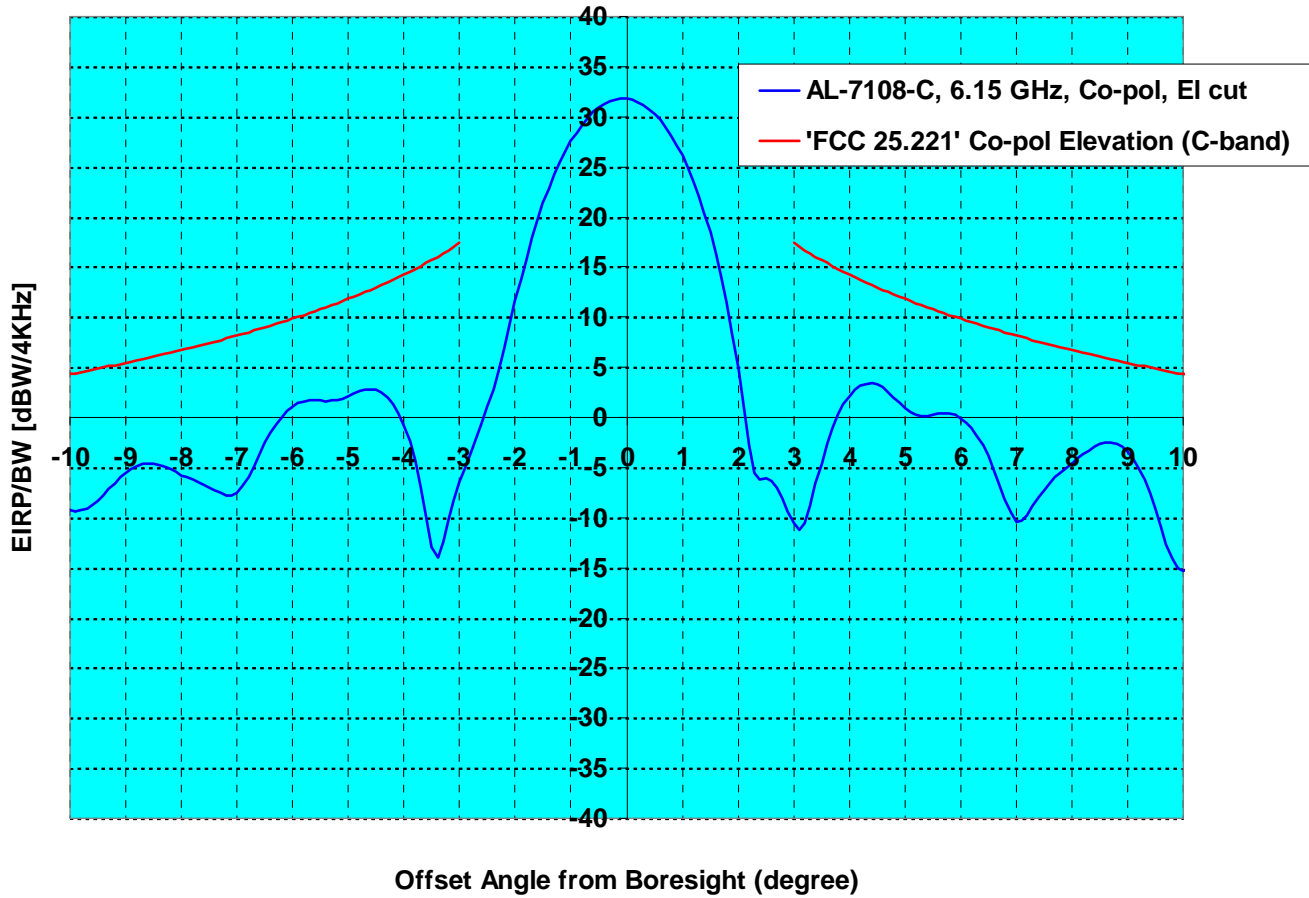
**'FCC 25.221' Co-pol Guide at C-band for EIRP/BW of -8.18 dBW/4KHz to Input
and 31.81 dBW/4KHz in the Output of AL-7108-C Antenna at 6.15 GHz in El cut**
Min BW of 373 KHz in case of 20W BUC



Configuration	Input EIRPsd	Antenna Gain	Peak Excursions dB		Over Mask
System, Frequency, Polarization, Plane	dBW/4KHz	dBi	± (3° to 7°)	± (3° to 30°)	%
AL-7108-C, 6.15 GHz, Co-pol, El cut	-8.19	39.99	-8.61	-8.19	0.00

Orbit Communication - Satcom Products
AL-7108-C, 2.4m Antenna, EIRPsd, Co-pol, Elevation

'FCC 25.221' Co-pol Guide at C-band for EIRP/BW of -8.18 dBW/4KHz to Input
and 31.81 dBW/4KHz in the Output of AL-7108-C Antenna at 6.15 GHz in El cut
Min BW of 373 KHz in case of 20W BUC

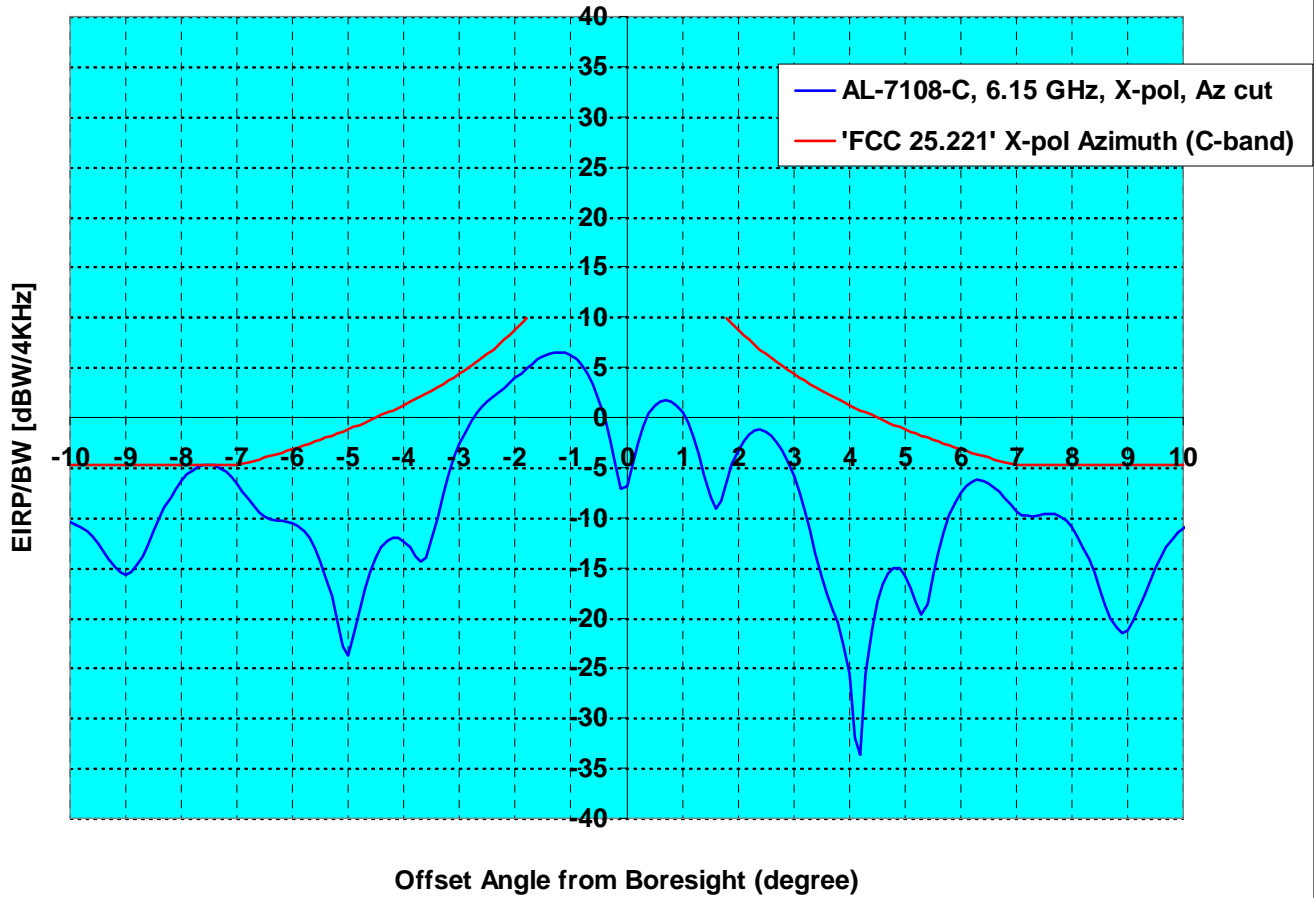


Configuration	Input EIRPsd	Antenna Gain	Peak Excursions dB		Over Mask
System, Frequency, Polarization, Plane	dBW/4KHz	dBi	± (3° to 7°)	± (3° to 30°)	%
AL-7108-C, 6.15 GHz, Co-pol, El cut	-8.19	39.99	-8.61	-8.19	0.00

Orbit Communication - Satcom Products

AL-7108-C, 2.4m Antenna, EIRPsd, X-pol, Azimuth

'FCC 25.221' X-pol Guide at C-band for EIRP/BW of -8.18 dBW/4KHz to Input
and 31.81 dBW/4KHz in the Output of AL-7108-C Antenna at 6.15 GHz in Az cut
Min BW of 373 KHz in case of 20W BUC



Configuration	Input EIRPsd	Antenna Gain	Peak Excursions dB		Over Mask
System, Frequency, Polarization, Plane	dBW/4KHz	dBi	± (1.8° to 7°)	± (1.8° to 180°)	%
AL-7108-C, 6.15 GHz, X-pol, Az cut	-8.19	39.99	-1.95	0.00	0.00

Orbit Communication - Satcom Products

AL-7108-C, 2.4m Antenna, EIRPsd Data Table
Co-pol Azimuth, -180° to +180° @ 1.0° increment

6.40 GHz @ -9.90 dBW / 4 kHz in Co-pol Az

Angle	EIRPsd	Mask	Over Mask
Degrees	dBW/4kHz	dBW/4kHz	dB
-179.0	-33.0	-12.7	-20.3
-178.0	-31.6	-12.7	-18.9
-177.0	-28.9	-12.7	-16.2
-176.0	-36.8	-12.7	-24.1
-175.0	-29.5	-12.7	-16.8
-174.0	-30.7	-12.7	-18.0
-173.0	-35.6	-12.7	-22.9
-172.0	-31.2	-12.7	-18.5
-171.0	-34.6	-12.7	-21.9
-170.0	-41.4	-12.7	-28.7
-169.0	-33.3	-12.7	-20.6
-168.0	-31.5	-12.7	-18.8
-167.0	-29.9	-12.7	-17.2
-166.0	-39.2	-12.7	-26.5
-165.0	-37.6	-12.7	-24.9
-164.0	-35.3	-12.7	-22.6
-163.0	-36.9	-12.7	-24.2
-162.0	-43.1	-12.7	-30.4
-161.0	-38.9	-12.7	-26.2
-160.0	-43.3	-12.7	-30.6
-159.0	-34.9	-12.7	-22.2
-158.0	-41.4	-12.7	-28.7
-157.0	-34.6	-12.7	-21.9
-156.0	-39.4	-12.7	-26.7
-155.0	-48.8	-12.7	-36.1
-154.0	-45.1	-12.7	-32.4
-153.0	-50.7	-12.7	-38.0
-152.0	-36.6	-12.7	-23.9
-151.0	-41.3	-12.7	-28.6
-150.0	-50.2	-12.7	-37.5
-149.0	-44.7	-12.7	-32.0
-148.0	-40.3	-12.7	-27.6
-147.0	-44.5	-12.7	-31.8
-146.0	-45.0	-12.7	-32.3
-145.0	-39.2	-12.7	-26.5
-144.0	-42.9	-12.7	-30.2
-143.0	-35.7	-12.7	-23.0
-142.0	-52.3	-12.7	-39.6
-141.0	-44.0	-12.7	-31.3
-140.0	-37.5	-12.7	-24.8
-139.0	-39.5	-12.7	-26.8
-138.0	-40.6	-12.7	-27.9
-137.0	-36.4	-12.7	-23.7
-136.0	-44.8	-12.7	-32.1
-135.0	-44.4	-12.7	-31.7
-134.0	-46.3	-12.7	-33.6
-133.0	-37.5	-12.7	-24.8
-132.0	-38.7	-12.7	-26.0
-131.0	-39.6	-12.7	-26.9
-130.0	-37.4	-12.7	-24.7
-129.0	-53.7	-12.7	-41.0
-128.0	-35.9	-12.7	-23.2
-127.0	-31.9	-12.7	-19.2
-126.0	-33.7	-12.7	-21.0
-125.0	-51.1	-12.7	-38.4
-124.0	-40.2	-12.7	-27.5
-123.0	-36.1	-12.7	-23.4
-122.0	-34.8	-12.7	-22.1
-121.0	-34.4	-12.7	-21.7
-120.0	-33.5	-12.7	-20.8
-119.0	-36.2	-12.7	-23.5
-118.0	-33.2	-12.7	-20.5

6.40 GHz @ -9.90 dBW / 4 kHz in Co-pol Az

Angle	EIRPsd	Mask	Over Mask
Degrees	dBW/4kHz	dBW/4kHz	dB
0.0	30.0		
1.0	26.3		
2.0	13.8	18.8	-5.0
3.0	-5.7	14.4	-20.1
4.0	-7.5	11.2	-18.7
5.0	-3.8	8.8	-12.7
6.0	-10.6	6.8	-17.4
7.0	-10.5	5.3	-15.8
8.0	-7.5	5.3	-12.8
9.0	0.8	5.3	-4.5
10.0	-10.4	4.3	-14.7
11.0	-9.4	3.3	-12.7
12.0	-16.8	2.3	-19.2
13.0	-16.5	1.5	-18.0
14.0	-5.3	0.6	-5.9
15.0	-5.1	-0.1	-5.0
16.0	-6.1	-0.8	-5.3
17.0	-10.0	-1.5	-8.5
18.0	-10.8	-2.1	-8.7
19.0	-12.6	-2.7	-9.9
20.0	-13.6	-3.2	-10.4
21.0	-10.8	-3.8	-7.0
22.0	-9.2	-4.3	-4.9
23.0	-10.4	-4.7	-5.6
24.0	-15.3	-5.2	-10.1
25.0	-12.5	-5.6	-6.8
26.0	-18.5	-6.1	-12.4
27.0	-19.5	-6.5	-13.0
28.0	-32.3	-6.9	-25.5
29.0	-26.0	-7.3	-18.7
30.0	-16.7	-7.6	-9.1
31.0	-13.7	-8.0	-5.7
32.0	-12.5	-8.3	-4.2
33.0	-13.1	-8.7	-4.5
34.0	-12.8	-9.0	-3.8
35.0	-14.6	-9.3	-5.3
36.0	-18.4	-9.6	-8.8
37.0	-24.3	-9.9	-14.4
38.0	-23.1	-10.2	-12.9
39.0	-22.2	-10.5	-11.7
40.0	-18.7	-10.8	-7.9
41.0	-23.4	-11.0	-12.3
42.0	-19.5	-11.3	-8.3
43.0	-23.0	-11.5	-11.5
44.0	-24.5	-11.8	-12.7
45.0	-22.9	-12.0	-10.9
46.0	-20.5	-12.3	-8.2
47.0	-17.0	-12.5	-4.5
48.0	-20.4	-12.7	-7.7
49.0	-19.5	-12.7	-6.8
50.0	-26.6	-12.7	-13.9
51.0	-31.0	-12.7	-18.3
52.0	-32.7	-12.7	-20.0
53.0	-24.5	-12.7	-11.8
54.0	-25.5	-12.7	-12.8
55.0	-22.5	-12.7	-9.8
56.0	-36.6	-12.7	-23.9
57.0	-28.2	-12.7	-15.5
58.0	-25.5	-12.7	-12.8
59.0	-22.2	-12.7	-9.5
60.0	-25.4	-12.7	-12.7
61.0	-23.5	-12.7	-10.8

Orbit Communication - Satcom Products

AL-7108-C, 2.4m Antenna, EIRPsd Data Table
Co-pol Azimuth, -180° to +180° @ 1.0° increment

-117.0	-31.6	-12.7	-18.9
-116.0	-28.7	-12.7	-16.0
-115.0	-27.0	-12.7	-14.3
-114.0	-25.1	-12.7	-12.4
-113.0	-25.7	-12.7	-13.0
-112.0	-23.3	-12.7	-10.6
-111.0	-22.2	-12.7	-9.5
-110.0	-20.7	-12.7	-8.0
-109.0	-21.8	-12.7	-9.1
-108.0	-23.2	-12.7	-10.5
-107.0	-22.9	-12.7	-10.2
-106.0	-23.6	-12.7	-10.9
-105.0	-22.6	-12.7	-9.9
-104.0	-22.6	-12.7	-9.9
-103.0	-22.6	-12.7	-9.9
-102.0	-23.8	-12.7	-11.1
-101.0	-24.8	-12.7	-12.1
-100.0	-35.2	-12.7	-22.5
-99.0	-35.4	-12.7	-22.7
-98.0	-28.1	-12.7	-15.4
-97.0	-26.0	-12.7	-13.3
-96.0	-23.4	-12.7	-10.7
-95.0	-22.2	-12.7	-9.5
-94.0	-20.7	-12.7	-8.0
-93.0	-20.5	-12.7	-7.8
-92.0	-21.1	-12.7	-8.4
-91.0	-22.5	-12.7	-9.8
-90.0	-24.4	-12.7	-11.7
-89.0	-20.5	-12.7	-7.8
-88.0	-20.6	-12.7	-7.9
-87.0	-17.9	-12.7	-5.2
-86.0	-16.9	-12.7	-4.2
-85.0	-17.3	-12.7	-4.6
-84.0	-18.4	-12.7	-5.7
-83.0	-18.8	-12.7	-6.1
-82.0	-20.2	-12.7	-7.5
-81.0	-23.7	-12.7	-11.0
-80.0	-26.6	-12.7	-13.9
-79.0	-29.7	-12.7	-17.0
-78.0	-40.6	-12.7	-27.9
-77.0	-32.2	-12.7	-19.5
-76.0	-27.3	-12.7	-14.6
-75.0	-26.7	-12.7	-14.0
-74.0	-24.7	-12.7	-12.0
-73.0	-23.4	-12.7	-10.7
-72.0	-20.8	-12.7	-8.1
-71.0	-16.8	-12.7	-4.1
-70.0	-18.5	-12.7	-5.8
-69.0	-17.4	-12.7	-4.7
-68.0	-19.6	-12.7	-6.9
-67.0	-19.5	-12.7	-6.8
-66.0	-21.8	-12.7	-9.1
-65.0	-24.3	-12.7	-11.6
-64.0	-23.4	-12.7	-10.7
-63.0	-29.1	-12.7	-16.4
-62.0	-27.7	-12.7	-15.0
-61.0	-39.0	-12.7	-26.3
-60.0	-40.6	-12.7	-27.9
-59.0	-32.2	-12.7	-19.5
-58.0	-30.1	-12.7	-17.4
-57.0	-27.3	-12.7	-14.6
-56.0	-24.1	-12.7	-11.4
-55.0	-26.2	-12.7	-13.5
-54.0	-26.7	-12.7	-14.0
-53.0	-30.6	-12.7	-17.9

62.0	-23.8	-12.7	-11.1
63.0	-20.8	-12.7	-8.1
64.0	-18.8	-12.7	-6.1
65.0	-17.2	-12.7	-4.5
66.0	-18.2	-12.7	-5.5
67.0	-17.7	-12.7	-5.0
68.0	-22.7	-12.7	-10.0
69.0	-22.4	-12.7	-9.7
70.0	-22.5	-12.7	-9.8
71.0	-19.0	-12.7	-6.3
72.0	-20.6	-12.7	-7.9
73.0	-25.2	-12.7	-12.5
74.0	-31.6	-12.7	-18.9
75.0	-30.1	-12.7	-17.4
76.0	-22.8	-12.7	-10.1
77.0	-23.0	-12.7	-10.3
78.0	-22.1	-12.7	-9.4
79.0	-21.8	-12.7	-9.1
80.0	-31.2	-12.7	-18.5
81.0	-26.6	-12.7	-13.9
82.0	-22.3	-12.7	-9.6
83.0	-20.5	-12.7	-7.8
84.0	-18.3	-12.7	-5.6
85.0	-18.7	-12.7	-6.0
86.0	-18.7	-12.7	-6.0
87.0	-20.7	-12.7	-8.0
88.0	-22.9	-12.7	-10.2
89.0	-25.8	-12.7	-13.1
90.0	-31.3	-12.7	-18.6
91.0	-38.3	-12.7	-25.6
92.0	-27.1	-12.7	-14.4
93.0	-25.4	-12.7	-12.7
94.0	-25.2	-12.7	-12.5
95.0	-28.6	-12.7	-15.9
96.0	-30.5	-12.7	-17.8
97.0	-25.6	-12.7	-12.9
98.0	-19.2	-12.7	-6.5
99.0	-16.5	-12.7	-3.8
100.0	-14.8	-12.7	-2.1
101.0	-16.0	-12.7	-3.3
102.0	-17.6	-12.7	-4.9
103.0	-24.5	-12.7	-11.8
104.0	-25.3	-12.7	-12.6
105.0	-22.9	-12.7	-10.2
106.0	-20.1	-12.7	-7.4
107.0	-21.8	-12.7	-9.1
108.0	-25.6	-12.7	-12.9
109.0	-26.4	-12.7	-13.7
110.0	-26.7	-12.7	-14.0
111.0	-21.9	-12.7	-9.2
112.0	-18.0	-12.7	-5.3
113.0	-16.5	-12.7	-3.8
114.0	-16.7	-12.7	-4.0
115.0	-16.7	-12.7	-4.0
116.0	-19.1	-12.7	-6.4
117.0	-19.5	-12.7	-6.8
118.0	-20.6	-12.7	-7.9
119.0	-23.0	-12.7	-10.3
120.0	-22.8	-12.7	-10.1
121.0	-29.5	-12.7	-16.8
122.0	-28.3	-12.7	-15.6
123.0	-27.4	-12.7	-14.7
124.0	-39.0	-12.7	-26.3
125.0	-33.0	-12.7	-20.3
126.0	-33.1	-12.7	-20.4

Orbit Communication - Satcom Products

AL-7108-C, 2.4m Antenna, EIRPsd Data Table
Co-pol Azimuth, -180° to +180° @ 1.0° increment

-52.0	-34.3	-12.7	-21.6
-51.0	-29.8	-12.7	-17.1
-50.0	-26.5	-12.7	-13.8
-49.0	-23.0	-12.7	-10.3
-48.0	-22.3	-12.7	-9.6
-47.0	-22.8	-12.5	-10.3
-46.0	-25.7	-12.3	-13.4
-45.0	-25.1	-12.0	-13.0
-44.0	-36.3	-11.8	-24.5
-43.0	-30.9	-11.5	-19.3
-42.0	-32.2	-11.3	-20.9
-41.0	-44.5	-11.0	-33.5
-40.0	-28.0	-10.8	-17.2
-39.0	-27.6	-10.5	-17.1
-38.0	-41.6	-10.2	-31.4
-37.0	-30.8	-9.9	-20.9
-36.0	-27.7	-9.6	-18.1
-35.0	-24.9	-9.3	-15.6
-34.0	-22.2	-9.0	-13.2
-33.0	-23.4	-8.7	-14.7
-32.0	-17.5	-8.3	-9.2
-31.0	-21.0	-8.0	-13.0
-30.0	-18.3	-7.6	-10.7
-29.0	-19.1	-7.3	-11.8
-28.0	-16.8	-6.9	-9.9
-27.0	-22.2	-6.5	-15.7
-26.0	-19.3	-6.1	-13.2
-25.0	-16.6	-5.6	-10.9
-24.0	-27.7	-5.2	-22.5
-23.0	-15.4	-4.7	-10.7
-22.0	-14.8	-4.3	-10.5
-21.0	-11.8	-3.8	-8.0
-20.0	-16.7	-3.2	-13.5
-19.0	-17.3	-2.7	-14.7
-18.0	-20.9	-2.1	-18.8
-17.0	-12.3	-1.5	-10.9
-16.0	-7.9	-0.8	-7.1
-15.0	-5.5	-0.1	-5.4
-14.0	-5.7	0.6	-6.4
-13.0	-14.9	1.5	-16.4
-12.0	-13.9	2.3	-16.2
-11.0	-12.3	3.3	-15.5
-10.0	-8.1	4.3	-12.4
-9.0	2.0	5.3	-3.3
-8.0	-3.6	5.3	-8.9
-7.0	-22.7	5.3	-28.0
-6.0	-25.5	6.8	-32.3
-5.0	-0.1	8.8	-8.9
-4.0	-4.8	11.2	-16.1
-3.0	-9.0	14.4	-23.4
-2.0	9.8	18.8	-9.0
-1.0	23.7		
0.0	30.0		

127.0	-34.4	-12.7	-21.7
128.0	-31.6	-12.7	-18.9
129.0	-48.6	-12.7	-35.9
130.0	-37.2	-12.7	-24.5
131.0	-34.7	-12.7	-22.0
132.0	-40.8	-12.7	-28.1
133.0	-35.1	-12.7	-22.4
134.0	-36.9	-12.7	-24.2
135.0	-37.6	-12.7	-24.9
136.0	-36.9	-12.7	-24.2
137.0	-38.5	-12.7	-25.8
138.0	-44.0	-12.7	-31.3
139.0	-51.0	-12.7	-38.3
140.0	-32.7	-12.7	-20.0
141.0	-44.1	-12.7	-31.4
142.0	-51.2	-12.7	-38.5
143.0	-34.8	-12.7	-22.1
144.0	-40.1	-12.7	-27.4
145.0	-47.0	-12.7	-34.3
146.0	-45.7	-12.7	-33.0
147.0	-40.2	-12.7	-27.5
148.0	-41.0	-12.7	-28.3
149.0	-36.4	-12.7	-23.7
150.0	-37.8	-12.7	-25.1
151.0	-33.4	-12.7	-20.7
152.0	-48.7	-12.7	-36.0
153.0	-44.9	-12.7	-32.2
154.0	-36.3	-12.7	-23.6
155.0	-42.1	-12.7	-29.4
156.0	-36.4	-12.7	-23.7
157.0	-39.5	-12.7	-26.8
158.0	-41.4	-12.7	-28.7
159.0	-38.3	-12.7	-25.6
160.0	-40.0	-12.7	-27.3
161.0	-37.2	-12.7	-24.5
162.0	-49.4	-12.7	-36.7
163.0	-40.6	-12.7	-27.9
164.0	-35.5	-12.7	-22.8
165.0	-32.4	-12.7	-19.7
166.0	-48.8	-12.7	-36.1
167.0	-35.3	-12.7	-22.6
168.0	-38.8	-12.7	-26.1
169.0	-42.6	-12.7	-29.9
170.0	-33.5	-12.7	-20.8
171.0	-39.2	-12.7	-26.5
172.0	-53.9	-12.7	-41.2
173.0	-41.3	-12.7	-28.6
174.0	-29.5	-12.7	-16.8
175.0	-48.0	-12.7	-35.3
176.0	-51.7	-12.7	-39.0
177.0	-40.1	-12.7	-27.4
178.0	-40.6	-12.7	-27.9
179.0	-32.2	-12.7	-19.5

Orbit Communication - Satcom Products

AL-7108-C, 2.4m Antenna, EIRPsd Data Table

Co-pol Azimuth, -10° to +10° @ 0.1° increment

6.40 GHz @ -9.90 dBW / 4 kHz in Co-pol Az				6.40 GHz @ -9.90 dBW / 4 kHz in Co-pol Az			
Angle Degrees	EIRPsd dBW/4kHz	Mask dBW/4kHz	Over Mask dB	Angle Degrees	EIRPsd dBW/4kHz	Mask dBW/4kHz	Over Mask dB
-10.0	-8.1	4.3	-12.4	0.0	30.0		
-9.9	-6.8	4.4	-11.2	0.1	30.1		
-9.8	-5.6	4.5	-10.1	0.2	30.1		
-9.7	-4.3	4.6	-8.9	0.3	30.0		
-9.6	-3.1	4.7	-7.8	0.4	29.7		
-9.5	-1.9	4.9	-6.8	0.5	29.4		
-9.4	-0.9	5.0	-5.8	0.6	29.0		
-9.3	0.1	5.1	-5.0	0.7	28.5		
-9.2	0.9	5.2	-4.3	0.8	27.9		
-9.1	1.5	5.3	-3.8	0.9	27.1		
-9.0	2.0	5.3	-3.3	1.0	26.3		
-8.9	2.3	5.3	-3.0	1.1	25.4		
-8.8	2.5	5.3	-2.8	1.2	24.4		
-8.7	2.4	5.3	-2.9	1.3	23.3		
-8.6	2.2	5.3	-3.1	1.4	22.1		
-8.5	1.8	5.3	-3.5	1.5	20.8	21.9	-1.1
-8.4	1.2	5.3	-4.1	1.6	19.4	21.2	-1.8
-8.3	0.4	5.3	-4.9	1.7	18.1	20.5	-2.4
-8.2	-0.6	5.3	-5.9	1.8	16.8	19.9	-3.2
-8.1	-2.0	5.3	-7.3	1.9	15.3	19.3	-4.0
-8.0	-3.6	5.3	-8.9	2.0	13.8	18.8	-5.0
-7.9	-5.5	5.3	-10.8	2.1	12.4	18.2	-5.9
-7.8	-7.7	5.3	-13.0	2.2	10.9	17.7	-6.8
-7.7	-10.4	5.3	-15.7	2.3	9.4	17.3	-7.9
-7.6	-13.5	5.3	-18.8	2.4	7.8	16.8	-9.0
-7.5	-16.9	5.3	-22.2	2.5	6.1	16.4	-10.3
-7.4	-20.5	5.3	-25.8	2.6	4.1	15.9	-11.8
-7.3	-25.0	5.3	-30.3	2.7	2.0	15.5	-13.5
-7.2	-32.5	5.3	-37.8	2.8	-0.3	15.1	-15.5
-7.1	-30.4	5.3	-35.7	2.9	-2.9	14.7	-17.6
-7.0	-22.7	5.3	-28.0	3.0	-5.7	14.4	-20.1
-6.9	-18.0	5.3	-23.4	3.1	-8.8	14.0	-22.8
-6.8	-15.0	5.5	-20.5	3.2	-11.8	13.7	-25.5
-6.7	-12.9	5.6	-18.5	3.3	-15.0	13.3	-28.3
-6.6	-11.6	5.8	-17.4	3.4	-19.0	13.0	-32.0
-6.5	-10.9	6.0	-16.9	3.5	-22.8	12.7	-35.5
-6.4	-11.0	6.1	-17.1	3.6	-19.9	12.4	-32.3
-6.3	-11.9	6.3	-18.2	3.7	-15.3	12.1	-27.4
-6.2	-13.8	6.5	-20.3	3.8	-11.8	11.8	-23.6
-6.1	-17.9	6.7	-24.6	3.9	-9.3	11.5	-20.8
-6.0	-25.5	6.8	-32.3	4.0	-7.5	11.2	-18.7
-5.9	-17.7	7.0	-24.7	4.1	-6.2	11.0	-17.1
-5.8	-11.6	7.2	-18.8	4.2	-5.2	10.7	-15.9
-5.7	-7.9	7.4	-15.3	4.3	-4.5	10.5	-15.0
-5.6	-5.2	7.6	-12.8	4.4	-4.1	10.2	-14.3
-5.5	-3.3	7.8	-11.1	4.5	-3.7	10.0	-13.7
-5.4	-1.9	8.0	-9.9	4.6	-3.6	9.7	-13.3
-5.3	-0.9	8.2	-9.1	4.7	-3.5	9.5	-13.0
-5.2	-0.3	8.4	-8.7	4.8	-3.5	9.3	-12.8
-5.1	0.0	8.6	-8.6	4.9	-3.6	9.0	-12.6
-5.0	-0.1	8.8	-8.9	5.0	-3.8	8.8	-12.7
-4.9	-0.4	9.0	-9.4	5.1	-4.3	8.6	-12.9
-4.8	-1.0	9.3	-10.3	5.2	-4.9	8.4	-13.3
-4.7	-1.9	9.5	-11.3	5.3	-5.7	8.2	-13.9
-4.6	-2.9	9.7	-12.7	5.4	-6.9	8.0	-14.9
-4.5	-4.1	10.0	-14.1	5.5	-8.5	7.8	-16.3
-4.4	-5.2	10.2	-15.4	5.6	-10.3	7.6	-17.9
-4.3	-5.8	10.5	-16.2	5.7	-11.8	7.4	-19.2
-4.2	-5.7	10.7	-16.4	5.8	-12.6	7.2	-19.9
-4.1	-5.3	11.0	-16.3	5.9	-11.9	7.0	-18.9
-4.0	-4.8	11.2	-16.1	6.0	-10.6	6.8	-17.4
-3.9	-4.5	11.5	-16.0	6.1	-9.3	6.7	-15.9
-3.8	-4.4	11.8	-16.2	6.2	-8.2	6.5	-14.7
-3.7	-4.7	12.1	-16.8	6.3	-7.5	6.3	-13.8
-3.6	-5.1	12.4	-17.5	6.4	-7.2	6.1	-13.3

Orbit Communication - Satcom Products

AL-7108-C, 2.4m Antenna, EIRPsd Data Table

Co-pol Azimuth, -10° to +10° @ 0.1° increment

-3.5	-5.9	12.7	-18.6		6.5	-7.2	6.0	-13.2
-3.4	-6.7	13.0	-19.8		6.6	-7.5	5.8	-13.3
-3.3	-7.7	13.3	-21.0		6.7	-8.0	5.6	-13.6
-3.2	-8.4	13.7	-22.1		6.8	-8.7	5.5	-14.2
-3.1	-8.9	14.0	-23.0		6.9	-9.5	5.3	-14.9
-3.0	-9.0	14.4	-23.4		7.0	-10.5	5.3	-15.8
-2.9	-8.3	14.7	-23.1		7.1	-11.6	5.3	-16.9
-2.8	-6.6	15.1	-21.8		7.2	-12.8	5.3	-18.1
-2.7	-4.3	15.5	-19.8		7.3	-14.2	5.3	-19.5
-2.6	-1.9	15.9	-17.8		7.4	-16.4	5.3	-21.7
-2.5	0.6	16.4	-15.8		7.5	-20.2	5.3	-25.5
-2.4	2.8	16.8	-14.0		7.6	-26.2	5.3	-31.5
-2.3	4.8	17.3	-12.5		7.7	-21.6	5.3	-26.9
-2.2	6.5	17.7	-11.2		7.8	-14.9	5.3	-20.2
-2.1	8.2	18.2	-10.0		7.9	-10.6	5.3	-15.9
-2.0	9.8	18.8	-9.0		8.0	-7.5	5.3	-12.8
-1.9	11.3	19.3	-8.1		8.1	-5.3	5.3	-10.6
-1.8	12.7	19.9	-7.2		8.2	-3.4	5.3	-8.7
-1.7	14.2	20.5	-6.4		8.3	-1.9	5.3	-7.2
-1.6	15.6	21.2	-5.6		8.4	-0.9	5.3	-6.2
-1.5	17.0	21.9	-4.9		8.5	-0.1	5.3	-5.4
-1.4	18.5				8.6	0.5	5.3	-4.8
-1.3	19.9				8.7	0.9	5.3	-4.4
-1.2	21.2				8.8	1.0	5.3	-4.3
-1.1	22.5				8.9	1.0	5.3	-4.3
-1.0	23.7				9.0	0.8	5.3	-4.5
-0.9	24.8				9.1	0.3	5.3	-5.0
-0.8	25.8				9.2	-0.2	5.2	-5.5
-0.7	26.6				9.3	-1.0	5.1	-6.1
-0.6	27.4				9.4	-2.0	5.0	-6.9
-0.5	28.1				9.5	-3.1	4.9	-7.9
-0.4	28.7				9.6	-4.3	4.7	-9.1
-0.3	29.2				9.7	-5.8	4.6	-10.4
-0.2	29.6				9.8	-7.3	4.5	-11.8
-0.1	29.8				9.9	-8.9	4.4	-13.4
0.0	30.0				10.0	-10.4	4.3	-14.7

Orbit Communication - Satcom Products

AL-7108-C, 2.4m Antenna, EIRPsd Data Table
Co-pol Elevation, -30° to +30° @ 0.5° increment

6.40 GHz @ -9.90 dBW / 4 kHz in Co-pol EI

Angle	EIRPsd	Mask	Over Mask
Degrees	dBW/4kHz	dBW/4kHz	dB
-30.0	-16.7	-7.6	-9.1
-29.5	-22.7	-7.4	-15.3
-29.0	-26.0	-7.3	-18.7
-28.5	-26.6	-7.1	-19.6
-28.0	-32.3	-6.9	-25.5
-27.5	-24.2	-6.7	-17.5
-27.0	-19.5	-6.5	-13.0
-26.5	-21.1	-6.3	-14.9
-26.0	-18.5	-6.1	-12.4
-25.5	-13.3	-5.9	-7.4
-25.0	-12.5	-5.6	-6.8
-24.5	-14.8	-5.4	-9.4
-24.0	-15.3	-5.2	-10.1
-23.5	-12.1	-5.0	-7.2
-23.0	-10.4	-4.7	-5.6
-22.5	-10.0	-4.5	-5.5
-22.0	-9.2	-4.3	-4.9
-21.5	-9.0	-4.0	-5.0
-21.0	-10.8	-3.8	-7.0
-20.5	-13.7	-3.5	-10.2
-20.0	-13.6	-3.2	-10.4
-19.5	-11.2	-3.0	-8.2
-19.0	-12.6	-2.7	-9.9
-18.5	-15.5	-2.4	-13.1
-18.0	-10.8	-2.1	-8.7
-17.5	-9.7	-1.8	-7.9
-17.0	-10.0	-1.5	-8.5
-16.5	-8.2	-1.1	-7.1
-16.0	-6.1	-0.8	-5.3
-15.5	-5.2	-0.5	-4.7
-15.0	-5.1	-0.1	-5.0
-14.5	-4.5	0.3	-4.8
-14.0	-5.3	0.6	-5.9
-13.5	-10.1	1.0	-11.1
-13.0	-16.5	1.5	-18.0
-12.5	-13.0	1.9	-14.9
-12.0	-16.8	2.3	-19.1
-11.5	-11.5	2.8	-14.3
-11.0	-9.4	3.3	-12.7
-10.5	-12.3	3.8	-16.0
-10.0	-10.4	4.3	-14.7
-9.5	-3.0	4.9	-7.9
-9.0	0.8	5.4	-4.7
-8.5	-0.1	6.1	-6.1
-8.0	-7.5	6.7	-14.2
-7.5	-20.2	7.4	-27.6
-7.0	-10.5	8.2	-18.7
-6.5	-7.2	9.0	-16.1
-6.0	-10.6	9.8	-20.4
-5.5	-8.5	10.8	-19.3
-5.0	-3.8	11.8	-15.7
-4.5	-3.7	13.0	-16.7
-4.0	-7.5	14.2	-21.7
-3.5	-22.7	15.7	-38.4
-3.0	-5.7	17.4	-23.1
-2.5	6.1		
-2.0	13.8		
-1.5	20.8		
-1.0	26.3		
-0.5	29.4		
0.0	30.0		

6.40 GHz @ -9.90 dBW / 4 kHz in Co-pol EI

Angle	EIRPsd	Mask	Over Mask
Degrees	dBW/4kHz	dBW/4kHz	dB
0.0	30.0		
0.5	28.1		
1.0	23.7		
1.5	17.0		
2.0	9.8		
2.5	0.6		
3.0	-9.0	17.4	-26.3
3.5	-5.9	15.7	-21.6
4.0	-4.8	14.2	-19.1
4.5	-4.1	13.0	-17.1
5.0	-0.1	11.8	-11.9
5.5	-3.3	10.8	-14.1
6.0	-25.5	9.8	-35.3
6.5	-10.9	9.0	-19.9
7.0	-22.7	8.2	-30.9
7.5	-16.9	7.4	-24.3
8.0	-3.6	6.7	-10.4
8.5	1.8	6.1	-4.2
9.0	2.0	5.4	-3.4
9.5	-1.9	4.9	-6.8
10.0	-8.1	4.3	-12.4
10.5	-13.3	3.8	-17.1
11.0	-12.3	3.3	-15.5
11.5	-17.0	2.8	-19.8
12.0	-13.9	2.3	-16.2
12.5	-12.5	1.9	-14.4
13.0	-14.9	1.5	-16.4
13.5	-7.9	1.0	-9.0
14.0	-5.7	0.6	-6.4
14.5	-5.7	0.3	-6.0
15.0	-5.5	-0.1	-5.4
15.5	-5.5	-0.5	-5.0
16.0	-7.9	-0.8	-7.1
16.5	-12.7	-1.1	-11.6
17.0	-12.3	-1.5	-10.9
17.5	-14.1	-1.8	-12.3
18.0	-20.9	-2.1	-18.8
18.5	-19.1	-2.4	-16.8
19.0	-17.3	-2.7	-14.7
19.5	-16.3	-3.0	-13.3
20.0	-16.7	-3.2	-13.5
20.5	-14.3	-3.5	-10.8
21.0	-11.8	-3.8	-8.0
21.5	-12.4	-4.0	-8.4
22.0	-14.8	-4.3	-10.5
22.5	-15.2	-4.5	-10.7
23.0	-15.4	-4.7	-10.7
23.5	-19.5	-5.0	-14.5
24.0	-27.7	-5.2	-22.5
24.5	-19.9	-5.4	-14.5
25.0	-16.6	-5.6	-10.9
25.5	-16.6	-5.9	-10.8
26.0	-19.3	-6.1	-13.2
26.5	-23.4	-6.3	-17.2
27.0	-22.2	-6.5	-15.7
27.5	-18.0	-6.7	-11.3
28.0	-16.8	-6.9	-9.9
28.5	-18.3	-7.1	-11.3
29.0	-19.1	-7.3	-11.8
29.5	-17.7	-7.4	-10.3
30.0	-18.3	-7.6	-10.6

Orbit Communication - Satcom Products

AL-7108-C, 2.4m Antenna, EIRPsd Data Table
Co-pol Elevation, -10° to +10° @ 0.1° increment

6.40 GHz @ -9.90 dBW / 4 kHz in Co-pol EI

Angle	EIRPsd	Mask	Over Mask
Degrees	dBW/4kHz	dBW/4kHz	dB
-10.0	-10.4	4.3	-14.7
-9.9	-8.9	4.4	-13.3
-9.8	-7.3	4.5	-11.8
-9.7	-5.8	4.6	-10.4
-9.6	-4.3	4.7	-9.1
-9.5	-3.0	4.9	-7.9
-9.4	-1.9	5.0	-6.9
-9.3	-1.0	5.1	-6.1
-9.2	-0.2	5.2	-5.4
-9.1	0.3	5.3	-5.0
-9.0	0.8	5.4	-4.7
-8.9	1.0	5.6	-4.6
-8.8	1.1	5.7	-4.6
-8.7	0.9	5.8	-4.9
-8.6	0.5	5.9	-5.4
-8.5	-0.1	6.1	-6.1
-8.4	-0.9	6.2	-7.1
-8.3	-1.9	6.3	-8.3
-8.2	-3.4	6.5	-9.9
-8.1	-5.3	6.6	-11.9
-8.0	-7.5	6.7	-14.2
-7.9	-10.6	6.9	-17.5
-7.8	-14.9	7.0	-21.9
-7.7	-21.6	7.1	-28.7
-7.6	-26.2	7.3	-33.4
-7.5	-20.2	7.4	-27.6
-7.4	-16.4	7.6	-23.9
-7.3	-14.2	7.7	-21.9
-7.2	-12.8	7.9	-20.6
-7.1	-11.6	8.0	-19.6
-7.0	-10.5	8.2	-18.7
-6.9	-9.5	8.3	-17.9
-6.8	-8.7	8.5	-17.2
-6.7	-8.0	8.6	-16.6
-6.6	-7.5	8.8	-16.3
-6.5	-7.2	9.0	-16.1
-6.4	-7.2	9.1	-16.3
-6.3	-7.5	9.3	-16.8
-6.2	-8.2	9.5	-17.7
-6.1	-9.3	9.7	-18.9
-6.0	-10.6	9.8	-20.4
-5.9	-11.9	10.0	-21.9
-5.8	-12.6	10.2	-22.8
-5.7	-11.8	10.4	-22.2
-5.6	-10.3	10.6	-20.9
-5.5	-8.5	10.8	-19.3
-5.4	-6.9	11.0	-17.9
-5.3	-5.7	11.2	-16.9
-5.2	-4.9	11.4	-16.3
-5.1	-4.3	11.6	-15.9
-5.0	-3.8	11.8	-15.7
-4.9	-3.6	12.0	-15.6
-4.8	-3.5	12.3	-15.7
-4.7	-3.5	12.5	-16.0
-4.6	-3.5	12.7	-16.3
-4.5	-3.7	13.0	-16.7
-4.4	-4.0	13.2	-17.3
-4.3	-4.5	13.5	-18.0
-4.2	-5.2	13.7	-18.9
-4.1	-6.2	14.0	-20.1
-4.0	-7.5	14.2	-21.7
-3.9	-9.3	14.5	-23.8

6.40 GHz @ -9.90 dBW / 4 kHz in Co-pol EI

Angle	EIRPsd	Mask	Over Mask
Degrees	dBW/4kHz	dBW/4kHz	dB
0.0	30.0		
0.1	29.9		
0.2	29.6		
0.3	29.2		
0.4	28.7		
0.5	28.1		
0.6	27.4		
0.7	26.6		
0.8	25.8		
0.9	24.8		
1.0	23.7		
1.1	22.5		
1.2	21.2		
1.3	19.9		
1.4	18.5		
1.5	17.0		
1.6	15.6		
1.7	14.2		
1.8	12.7		
1.9	11.3		
2.0	9.8		
2.1	8.2		
2.2	6.5		
2.3	4.8		
2.4	2.8		
2.5	0.6		
2.6	-1.9		
2.7	-4.3		
2.8	-6.6		
2.9	-8.3		
3.0	-9.0	17.4	-26.3
3.1	-8.9	17.0	-25.9
3.2	-8.4	16.7	-25.1
3.3	-7.7	16.3	-24.0
3.4	-6.7	16.0	-22.8
3.5	-5.9	15.7	-21.6
3.6	-5.1	15.4	-20.5
3.7	-4.7	15.1	-19.7
3.8	-4.4	14.8	-19.2
3.9	-4.5	14.5	-19.0
4.0	-4.8	14.2	-19.1
4.1	-5.3	14.0	-19.3
4.2	-5.7	13.7	-19.4
4.3	-5.8	13.5	-19.2
4.4	-5.2	13.2	-18.4
4.5	-4.1	13.0	-17.1
4.6	-2.9	12.7	-15.7
4.7	-1.8	12.5	-14.3
4.8	-1.0	12.3	-13.3
4.9	-0.4	12.0	-12.4
5.0	-0.1	11.8	-11.9
5.1	0.0	11.6	-11.6
5.2	-0.3	11.4	-11.7
5.3	-0.9	11.2	-12.1
5.4	-1.9	11.0	-12.9
5.5	-3.3	10.8	-14.1
5.6	-5.2	10.6	-15.7
5.7	-7.9	10.4	-18.3
5.8	-11.6	10.2	-21.8
5.9	-17.7	10.0	-27.7
6.0	-25.5	9.8	-35.3
6.1	-17.9	9.7	-27.6

Orbit Communication - Satcom Products

AL-7108-C, 2.4m Antenna, EIRPsd Data Table
Co-pol Elevation, -10° to +10° @ 0.1° increment

-3.8	-11.8	14.8	-26.6
-3.7	-15.3	15.1	-30.4
-3.6	-19.9	15.4	-35.3
-3.5	-22.7	15.7	-38.4
-3.4	-19.0	16.0	-35.0
-3.3	-15.0	16.3	-31.3
-3.2	-11.8	16.7	-28.5
-3.1	-8.8	17.0	-25.8
-3.0	-5.7	17.4	-23.1
-2.9	-2.9		
-2.8	-0.3		
-2.7	2.0		
-2.6	4.1		
-2.5	6.1		
-2.4	7.8		
-2.3	9.4		
-2.2	10.9		
-2.1	12.4		
-2.0	13.8		
-1.9	15.3		
-1.8	16.8		
-1.7	18.1		
-1.6	19.4		
-1.5	20.8		
-1.4	22.1		
-1.3	23.3		
-1.2	24.4		
-1.1	25.4		
-1.0	26.3		
-0.9	27.1		
-0.8	27.9		
-0.7	28.5		
-0.6	29.0		
-0.5	29.4		
-0.4	29.7		
-0.3	30.0		
-0.2	30.1		
-0.1	30.1		
0.0	30.0		

6.2	-13.8	9.5	-23.3
6.3	-11.9	9.3	-21.2
6.4	-11.0	9.1	-20.1
6.5	-10.9	9.0	-19.9
6.6	-11.6	8.8	-20.4
6.7	-12.9	8.6	-21.5
6.8	-15.0	8.5	-23.5
6.9	-18.0	8.3	-26.4
7.0	-22.7	8.2	-30.9
7.1	-30.4	8.0	-38.4
7.2	-32.5	7.9	-40.4
7.3	-25.0	7.7	-32.7
7.4	-20.5	7.6	-28.1
7.5	-16.9	7.4	-24.3
7.6	-13.5	7.3	-20.8
7.7	-10.4	7.1	-17.6
7.8	-7.7	7.0	-14.7
7.9	-5.5	6.9	-12.4
8.0	-3.6	6.7	-10.4
8.1	-2.0	6.6	-8.6
8.2	-0.6	6.5	-7.1
8.3	0.4	6.3	-6.0
8.4	1.2	6.2	-5.0
8.5	1.8	6.1	-4.2
8.6	2.2	5.9	-3.7
8.7	2.5	5.8	-3.4
8.8	2.5	5.7	-3.2
8.9	2.3	5.6	-3.2
9.0	2.0	5.4	-3.4
9.1	1.5	5.3	-3.8
9.2	0.9	5.2	-4.3
9.3	0.1	5.1	-5.0
9.4	-0.9	5.0	-5.8
9.5	-1.9	4.9	-6.8
9.6	-3.1	4.7	-7.8
9.7	-4.3	4.6	-8.9
9.8	-5.6	4.5	-10.1
9.9	-6.8	4.4	-11.2
10.0	-8.1	4.3	-12.4

Orbit Communication - Satcom Products

AL-7108-C, 2.4m Antenna, EIRPsd Data Table
X-pol Azimuth, -10° to +10° @ 0.1° increment

6.40 GHz @ -9.90 dBW / 4 kHz in X-pol Az

Angle	EIRPsd	Mask	Over Mask
Degrees	dBW/4kHz	dBW/4kHz	dB
-10.0	-15.7	-4.7	-11.0
-9.9	-16.1	-4.7	-11.4
-9.8	-16.6	-4.7	-11.9
-9.7	-17.2	-4.7	-12.5
-9.6	-17.9	-4.7	-13.2
-9.5	-18.3	-4.7	-13.6
-9.4	-17.9	-4.7	-13.2
-9.3	-16.7	-4.7	-12.0
-9.2	-15.2	-4.7	-10.5
-9.1	-13.7	-4.7	-9.0
-9.0	-12.3	-4.7	-7.6
-8.9	-11.3	-4.7	-6.6
-8.8	-10.5	-4.7	-5.8
-8.7	-9.9	-4.7	-5.2
-8.6	-9.4	-4.7	-4.7
-8.5	-9.1	-4.7	-4.4
-8.4	-8.8	-4.7	-4.1
-8.3	-8.5	-4.7	-3.8
-8.2	-8.1	-4.7	-3.4
-8.1	-7.6	-4.7	-2.9
-8.0	-7.1	-4.7	-2.4
-7.9	-6.6	-4.7	-1.9
-7.8	-6.1	-4.7	-1.4
-7.7	-5.7	-4.7	-1.0
-7.6	-5.4	-4.7	-0.7
-7.5	-5.4	-4.7	-0.7
-7.4	-5.4	-4.7	-0.7
-7.3	-5.7	-4.7	-1.0
-7.2	-6.1	-4.7	-1.4
-7.1	-6.5	-4.7	-1.8
-7.0	-7.1	-4.7	-2.4
-6.9	-7.5	-4.7	-2.9
-6.8	-7.7	-4.5	-3.2
-6.7	-7.5	-4.4	-3.1
-6.6	-7.0	-4.2	-2.8
-6.5	-6.3	-4.0	-2.2
-6.4	-5.5	-3.9	-1.6
-6.3	-4.8	-3.7	-1.1
-6.2	-4.2	-3.5	-0.7
-6.1	-3.7	-3.3	-0.4
-6.0	-3.3	-3.2	-0.2
-5.9	-3.0	-3.0	0.0
-5.8	-2.8	-2.8	0.0
-5.7	-2.6	-2.6	0.0
-5.6	-2.5	-2.4	-0.1
-5.5	-2.4	-2.2	-0.2
-5.4	-2.3	-2.0	-0.3
-5.3	-2.2	-1.8	-0.4
-5.2	-2.1	-1.6	-0.5
-5.1	-2.1	-1.4	-0.7
-5.0	-2.2	-1.2	-1.1
-4.9	-2.4	-1.0	-1.5
-4.8	-2.8	-0.7	-2.1
-4.7	-3.3	-0.5	-2.8
-4.6	-4.1	-0.3	-3.8
-4.5	-5.1	0.0	-5.0
-4.4	-6.4	0.2	-6.6
-4.3	-8.0	0.5	-8.4
-4.2	-10.1	0.7	-10.8
-4.1	-13.0	1.0	-13.9
-4.0	-16.8	1.2	-18.0
-3.9	-19.9	1.5	-21.4

6.40 GHz @ -9.90 dBW / 4 kHz in X-pol Az

Angle	EIRPsd	Mask	Over Mask
Degrees	dBW/4kHz	dBW/4kHz	dB
0.0	-7.4		
0.1	-12.5		
0.2	-10.8		
0.3	-5.8		
0.4	-2.6		
0.5	-0.4		
0.6	1.2		
0.7	2.4		
0.8	3.2		
0.9	3.7		
1.0	4.0		
1.1	4.1		
1.2	4.0		
1.3	3.7		
1.4	3.2		
1.5	2.5		
1.6	1.6		
1.7	0.5		
1.8	-0.9	9.9	-10.8
1.9	-2.7	9.3	-12.0
2.0	-4.8	8.8	-13.6
2.1	-7.4	8.2	-15.6
2.2	-10.4	7.7	-18.1
2.3	-13.3	7.3	-20.5
2.4	-13.8	6.8	-20.6
2.5	-12.4	6.4	-18.7
2.6	-10.8	5.9	-16.7
2.7	-9.6	5.5	-15.1
2.8	-9.0	5.1	-14.1
2.9	-8.9	4.7	-13.6
3.0	-9.1	4.4	-13.4
3.1	-9.7	4.0	-13.7
3.2	-10.6	3.7	-14.3
3.3	-11.9	3.3	-15.3
3.4	-13.8	3.0	-16.8
3.5	-16.2	2.7	-18.9
3.6	-19.4	2.4	-21.8
3.7	-23.6	2.1	-25.7
3.8	-28.9	1.8	-30.7
3.9	-28.2	1.5	-29.7
4.0	-24.0	1.2	-25.2
4.1	-21.2	1.0	-22.2
4.2	-19.4	0.7	-20.1
4.3	-18.0	0.5	-18.5
4.4	-17.0	0.2	-17.3
4.5	-16.1	0.0	-16.1
4.6	-15.4	-0.3	-15.1
4.7	-14.7	-0.5	-14.2
4.8	-13.9	-0.7	-13.2
4.9	-13.1	-1.0	-12.2
5.0	-12.5	-1.2	-11.3
5.1	-11.9	-1.4	-10.5
5.2	-11.2	-1.6	-9.6
5.3	-10.5	-1.8	-8.7
5.4	-10.0	-2.0	-8.0
5.5	-9.5	-2.2	-7.3
5.6	-9.0	-2.4	-6.6
5.7	-8.6	-2.6	-6.0
5.8	-8.2	-2.8	-5.5
5.9	-8.0	-3.0	-5.0
6.0	-7.8	-3.2	-4.7
6.1	-7.8	-3.3	-4.5

Orbit Communication - Satcom Products

AL-7108-C, 2.4m Antenna, EIRPsd Data Table
X-pol Azimuth, -10° to +10° @ 0.1° increment

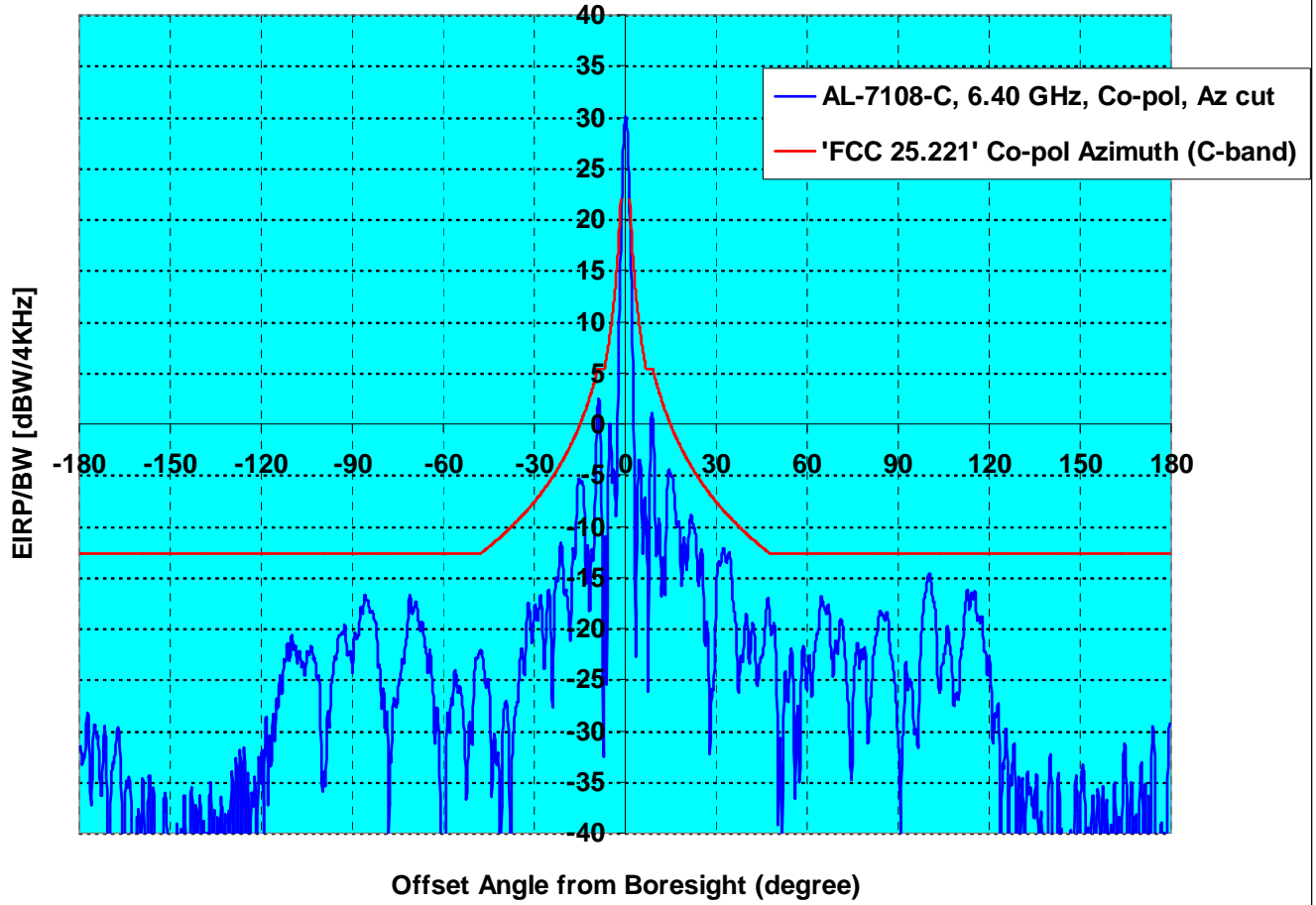
-3.8	-18.1	1.8	-19.9
-3.7	-14.7	2.1	-16.8
-3.6	-12.2	2.4	-14.6
-3.5	-10.3	2.7	-13.0
-3.4	-9.1	3.0	-12.1
-3.3	-8.3	3.3	-11.7
-3.2	-7.8	3.7	-11.5
-3.1	-7.6	4.0	-11.6
-3.0	-7.5	4.4	-11.9
-2.9	-7.5	4.7	-12.2
-2.8	-7.3	5.1	-12.4
-2.7	-6.7	5.5	-12.2
-2.6	-5.6	5.9	-11.5
-2.5	-4.2	6.4	-10.5
-2.4	-2.5	6.8	-9.3
-2.3	-0.9	7.3	-8.1
-2.2	0.6	7.7	-7.1
-2.1	2.1	8.2	-6.2
-2.0	3.3	8.8	-5.4
-1.9	4.4	9.3	-4.9
-1.8	5.4	9.9	-4.5
-1.7	6.2		
-1.6	6.8		
-1.5	7.4		
-1.4	7.7		
-1.3	8.0		
-1.2	8.1		
-1.1	8.1		
-1.0	8.0		
-0.9	7.7		
-0.8	7.3		
-0.7	6.7		
-0.6	5.9		
-0.5	4.9		
-0.4	3.6		
-0.3	2.0		
-0.2	-0.1		
-0.1	-3.0		
0.0	-7.4		

6.2	-7.9	-3.5	-4.4
6.3	-8.1	-3.7	-4.4
6.4	-8.3	-3.9	-4.4
6.5	-8.6	-4.0	-4.6
6.6	-9.0	-4.2	-4.8
6.7	-9.3	-4.4	-4.9
6.8	-9.5	-4.5	-5.0
6.9	-9.6	-4.7	-5.0
7.0	-9.5	-4.7	-4.8
7.1	-9.3	-4.7	-4.6
7.2	-9.1	-4.7	-4.4
7.3	-8.9	-4.7	-4.2
7.4	-8.6	-4.7	-3.9
7.5	-8.3	-4.7	-3.6
7.6	-8.3	-4.7	-3.6
7.7	-8.3	-4.7	-3.6
7.8	-8.2	-4.7	-3.5
7.9	-8.3	-4.7	-3.6
8.0	-8.4	-4.7	-3.7
8.1	-8.5	-4.7	-3.8
8.2	-8.7	-4.7	-4.0
8.3	-8.9	-4.7	-4.2
8.4	-9.0	-4.7	-4.3
8.5	-9.2	-4.7	-4.5
8.6	-9.5	-4.7	-4.8
8.7	-9.8	-4.7	-5.1
8.8	-10.1	-4.7	-5.4
8.9	-10.4	-4.7	-5.7
9.0	-10.7	-4.7	-6.0
9.1	-11.0	-4.7	-6.3
9.2	-11.2	-4.7	-6.5
9.3	-11.3	-4.7	-6.6
9.4	-11.4	-4.7	-6.7
9.5	-11.2	-4.7	-6.5
9.6	-11.1	-4.7	-6.4
9.7	-10.9	-4.7	-6.2
9.8	-10.7	-4.7	-6.0
9.9	-10.5	-4.7	-5.8
10.0	-10.4	-4.7	-5.7

Orbit Communication - Satcom Products

AL-7108-C, 2.4m Antenna, EIRPsd, Co-pol, Azimuth

'FCC 25.221' Co-pol Guide at C-band for EIRP/BW of -9.90 dBW/4KHz to Input
and 30.03 dBW/4KHz in the Output of AL-7108-C Antenna at 6.40 GHz in Az cut
Min BW of 554 KHz in case of 20W BUC

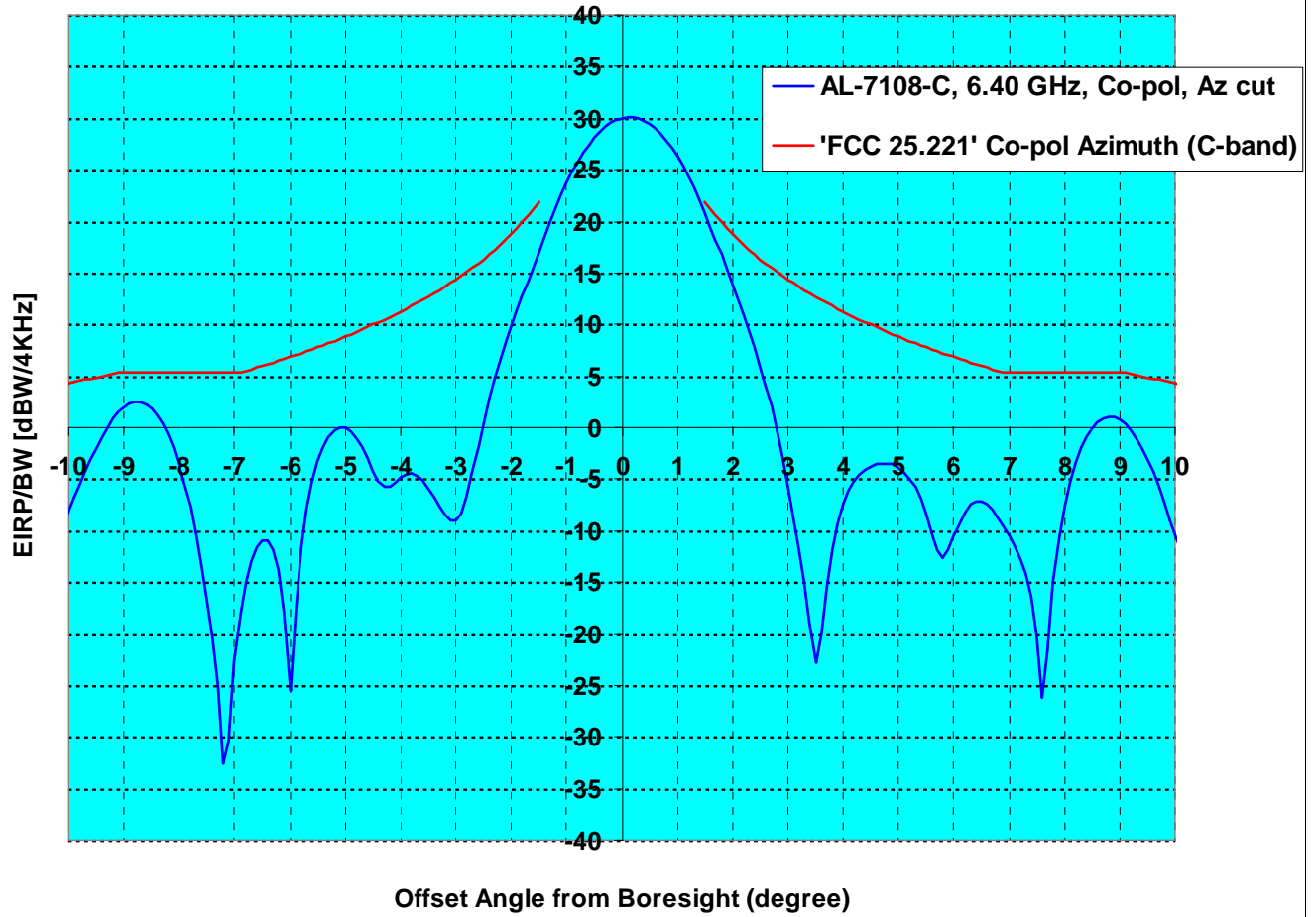


Configuration System, Frequency, Polarization, Plane	Input EIRPsd dBW/4KHz	Antenna Gain dBi	Peak Excursions dB		Over Mask %
			± (1.5° to 7°)	± (7° to 180°)	
AL-7108-C, 6.40 GHz, Co-pol, Az cut	-9.90	39.93	-1.09	-1.90	0.00

Orbit Communication - Satcom Products

AL-7108-C, 2.4m Antenna, EIRPsd, Co-pol, Azimuth

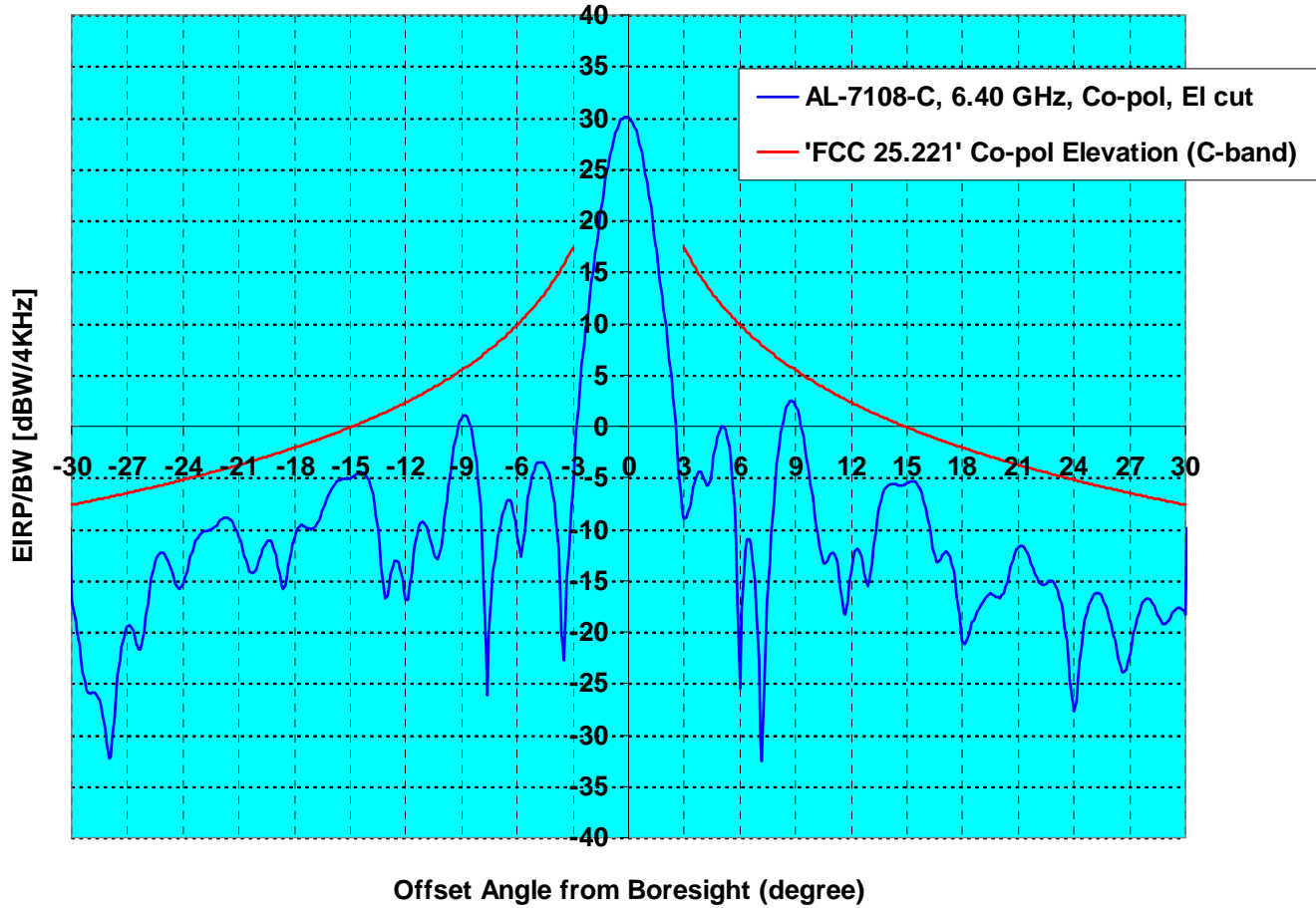
'FCC 25.221' Co-pol Guide at C-band for EIRP/BW of -9.90 dBW/4KHz to Input
and 30.03 dBW/4KHz in the Output of AL-7108-C Antenna at 6.40 GHz in Az cut
Min BW of 554 KHz in case of 20W BUC



Configuration	Input EIRPsd	Antenna Gain	Peak Excursions dB		Over Mask
System, Frequency, Polarization, Plane	dBW/4KHz	dBi	± (1.5° to 7°)	± (7° to 180°)	%
AL-7108-C, 6.40 GHz, Co-pol, Az cut	-9.90	39.93	-1.09	-1.90	0.00

Orbit Communication - Satcom Products
AL-7108-C, 2.4m Antenna, EIRPsd, Co-pol, Elevation

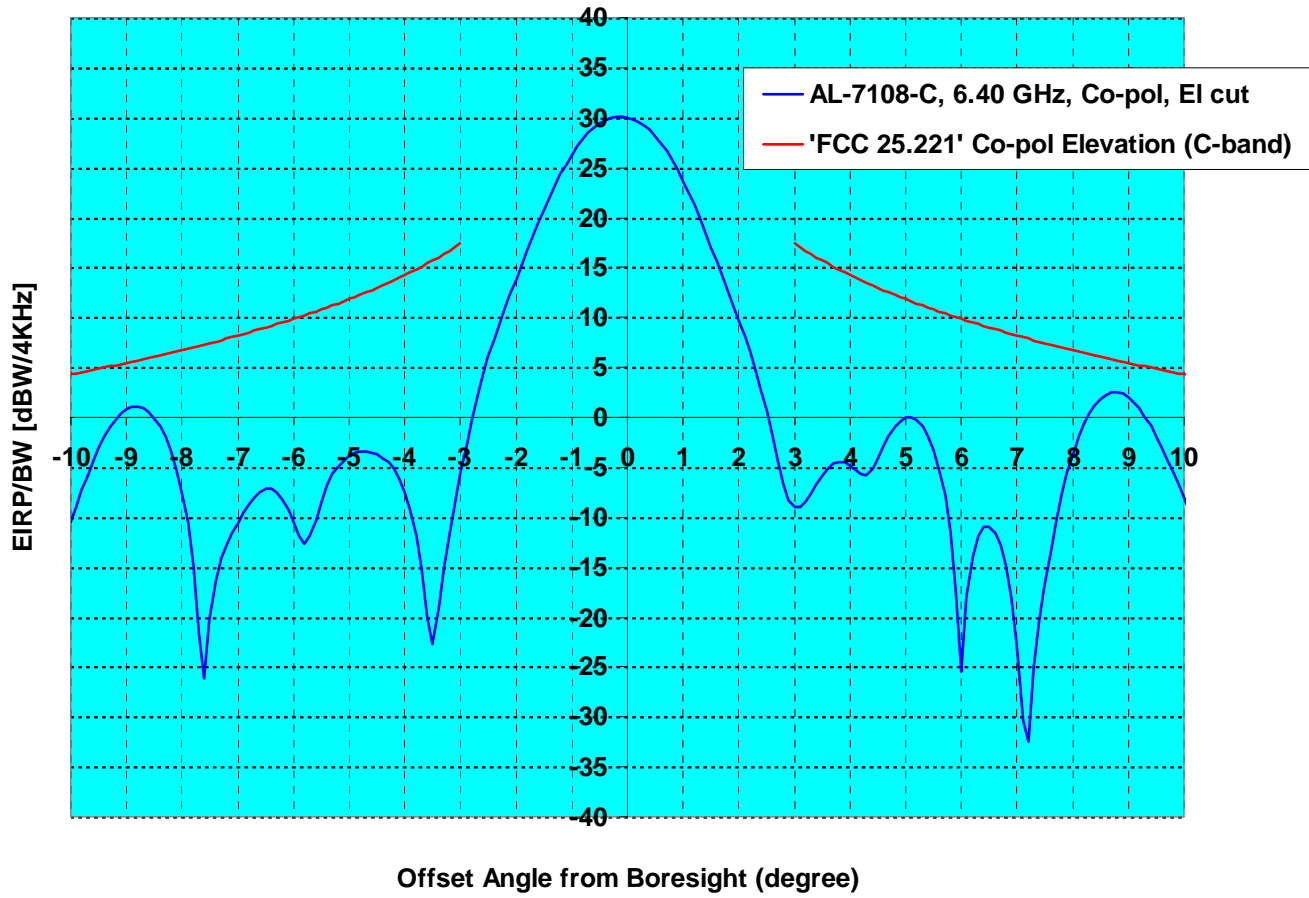
**'FCC 25.221' Co-pol Guide at C-band for EIRP/BW of -9.90 dBW/4KHz to Input
and 30.03 dBW/4KHz in the Output of AL-7108-C Antenna at 6.40 GHz in El cut**
Min BW of 554 KHz in case of 20W BUC



Configuration System, Frequency, Polarization, Plane	Input EIRPsd dBW/4KHz	Antenna Gain dBi	Peak Excursions dB		Over Mask %
			± (3° to 7°)	± (3° to 30°)	
AL-7108-C, 6.40 GHz, Co-pol, El cut	-9.90	39.93	-11.64	-3.21	0.00

Orbit Communication - Satcom Products
AL-7108-C, 2.4m Antenna, EIRPsd, Co-pol, Elevation

**'FCC 25.221' Co-pol Guide at C-band for EIRP/BW of -9.90 dBW/4KHz to Input
and 30.03 dBW/4KHz in the Output of AL-7108-C Antenna at 6.40 GHz in EL cut**
Min BW of 554 KHz in case of 20W BUC

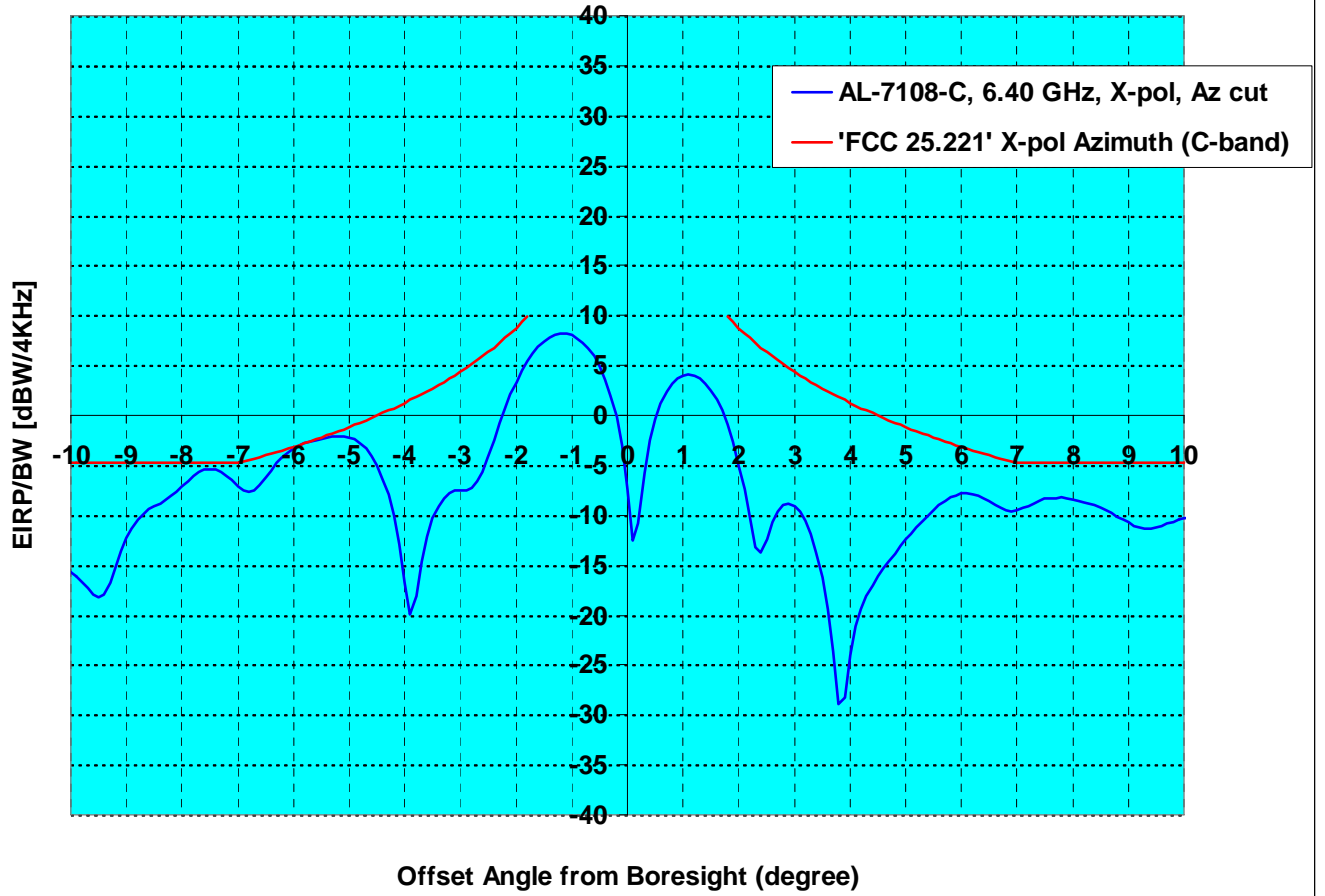


Configuration	Input EIRPsd	Antenna Gain	Peak Excursions dB		Over Mask
System, Frequency, Polarization, Plane	dBW/4KHz	dBi	± (3° to 7°)	± (3° to 30°)	%
AL-7108-C, 6.40 GHz, Co-pol, El cut	-9.90	39.93	-11.64	-3.21	0.00

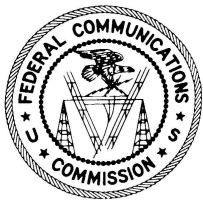
Orbit Communication - Satcom Products

AL-7108-C, 2.4m Antenna, EIRPsd, X-pol, Azimuth

'FCC 25.221' X-pol Guide at C-band for EIRP/BW of -9.90 dBW/4KHz to Input
and 30.03 dBW/4KHz in the Output of AL-7108-C Antenna at 6.40 GHz in Az cut
Min BW of 554 KHz in case of 20W BUC



Configuration	Input EIRPsd	Antenna Gain	Peak Excursions dB		Over Mask
System, Frequency, Polarization, Plane	dBW/4KHz	dBi	± (1.8° to 7°)	± (1.8° to 180°)	%
AL-7108-C, 6.40 GHz, X-pol, Az cut	-9.90	39.93	0.00	0.00	0.00



UNITED STATES OF AMERICA
FEDERAL COMMUNICATIONS COMMISSION
RADIO STATION AUTHORIZATION
Current Authorization : FCC WEB Reproduction
Unofficial Copy

Name: HARRIS CAPROCK COMMUNICATIONS, INC.

Call Sign: E090176
File Number: SES-MOD-20120126-00097

Authorization Type: Modification of License
Non Common Carrier Grant Date: 04/09/2012 Expiration Date: 01/08/2025

Nature of Service: Earth Stations on-board Vessels
Fixed Satellite Service

Class of Station: Earth Stations on-board

A) Site Location(s)

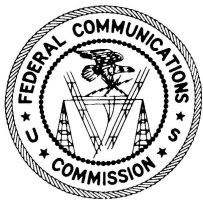
# Site ID	Address	Latitude	Longitude	Elevation (Meters)	NAD	Special Provisions (Refer to Section H)
1) Oceans	Gulf of Mexico, US channers and waterway POR, AOR, Caribbean Sea Gulf of Mexico, TX	0° 0' 0.0" N	0° 0' 0.0" W	0.0	83	
Licensee certifies antenna(s) do not comply with Section 25.209. Please refer to Section E for special conditions placed upon antennas at this site.						
2) ORB7108	GULF OF MEXICO, US WATERWAYS, CHANNELS & CARIBBEAN SEA, POR, AOR , LA				83	
Licensee certifies antenna(s) do not comply with Section 25.209. Please refer to Section E for special conditions placed upon antennas at this site.						
3) ORB7109	GULF OF MEXICO, US WATERWAYS CARRIBBEAN SEA, POR, AOR , LA				83	
Licensee certifies antenna(s) do not comply with Section 25.209. Please refer to Section E for special conditions placed upon antennas at this site.						

Subject to the provisions of the Communications Act of 1934, The Communications Satellite Act of 1962, subsequent acts and treaties, and all present and future regulations made by this Commission, and further subject to the conditions and requirements set forth in this license, the grantee is authorized to construct, use and operate the radio facilities described below for radio communications for the term beginning Friday, January 08, 2010 (3 AM Eastern Standard Time) and ending Wednesday, January 08, 2025 (3 AM Eastern Standard Time). The required date of completion of construction and commencement of operation is Tuesday, April 09, 2013 (3 AM Eastern Standard Time). Grantee must file with the Commission a certification upon completion of construction and commencement of operation.

B) Particulars of Operations

The General Provision 1010 applies to all receiving frequency bands.
The General Provision 1900 applies to all transmitting frequency bands.
For the text of these provisions, refer to Section H.

# Frequency	Polarization	Emission	Tx/Rx Mode	Max EIRP /Carrier	Max EIRP Density	Associated Antenna	Special Provisions (Refer to Section H)	Modulation/ Services
1) 5925.0000 - 6425.0000	H,V	1M85G7D	T	56.70	30.05	ORB7108		DIGITAL
2) 3700.0000 - 4200.0000	H,V	1M85G7D	R			ORB7108		DIGITAL
3) 5925.0000 - 6425.0000	H,V	1M85G7D	T	56.70	30.05	ORB7109		DIGITAL



UNITED STATES OF AMERICA
FEDERAL COMMUNICATIONS COMMISSION
RADIO STATION AUTHORIZATION
Current Authorization : FCC WEB Reproduction
 Unofficial Copy

Name: HARRIS CAPROCK COMMUNICATIONS, INC.

Call Sign: E090176
File Number: SES-MOD-20120126-00097

Authorization Type:		Modification of License					
Non Common Carrier		Grant Date:	04/09/2012		Expiration Date:	01/08/2025	
4)	3700.0000 - 4200.0000	H,V	1M85G7D	R	ORB7109	DIGITAL	
5)	5925.0000 - 6425.0000	H,V	1M85G7D	T	57.00	31.00	Seate19797
6)	5925.0000 - 6425.0000	H,V	200KG7W	T	47.70	31.00	Seate19797
7)	3700.0000 - 4200.0000	H,V	200KG7W	R	0.00	0.00	Seate19797
8)	3700.0000 - 4200.0000	H,V	1M85G7D	R	0.00	0.00	Seate19797

C) Frequency Coordination

#	Frequency Limits(MHz)	Satellite Arc (Deg. Long.)		Elevation (Degrees)		Azimuth (Degrees)		Max EIRP Density toward Horizon (dBW/4kHz)	Associated Antenna(s)
		East Limit	West Limit	East Limit	West Limit	East Limit	West Limit		
1)	5925.0000 - 6425.0000	-	-	-	-	-	-	-	Seate19797
2)	3700.0000 - 4200.0000	-	-	-	-	-	-	-	Seate19797
3)	5925.0000 - 6425.0000	-	-	-	-	-	-	-	ORB7108
4)	3700.0000 - 4200.0000	-	-	-	-	-	-	-	ORB7108
5)	5925.0000 - 6425.0000	-	-	-	-	-	-	-	ORB7109
6)	3700.0000 - 4200.0000	-	-	-	-	-	-	-	ORB7109

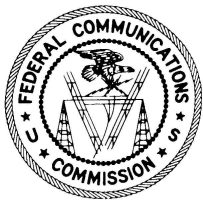
D) Point of Communications

The following stations located in the Satellite orbits consistent with Sections B and C of this Entry:

- 1) Oceans to SATMEX 6 @ 113 W.L. (Mexican-licensed) (Non-U.S.-licensed)
- 2) Oceans to INTELSAT 707 satellite @ 53 W.L. of the INTELSAT system (U.S.-licensed)
- 3) Oceans to SATMEX-5 @ 116.8 W.L. (Mexican-licensed) (Non-U.S.-licensed)
- 4) Oceans to All authorized U.S. Domestic (ALSAT) Satellites.
- 5) ORB7108 to INTELSAT 605 satellites @ 332.5 E.L. of the INTELSAT system (U.S.-licensed)
- 6) ORB7108 to All authorized U.S. Domestic (ALSAT) Satellites.
- 7) ORB7109 to INTELSAT 605 satellites @ 332.5 E.L. of the INTELSAT system (U.S.-licensed)
- 8) ORB7109 to All authorized U.S. Domestic (ALSAT) Satellites.

E) Antenna Facilities

Site ID	Antenna ID	Units	Diameter (Meters)	Manufacturer	Model Number	Site Elevation	Max Antenna Height (Meters)	Special Provisions (Refer to Section H)
ORB7108	ORB7108	250	2.4	ORBIT	7108			
Max Gains(s):39.0 dBi @ 3.9500 GHz 39.9 dBi @ 6.4000 GHz								
Maximum total input power at antenna flange (Watts) = 50.0								
Maximum aggregate output EIRP for all carriers (dBW)56.92								



UNITED STATES OF AMERICA
FEDERAL COMMUNICATIONS COMMISSION
RADIO STATION AUTHORIZATION
Current Authorization : FCC WEB Reproduction
Unofficial Copy

Name: HARRIS CAPROCK COMMUNICATIONS, INC.

Call Sign: E090176
File Number: SES-MOD-20120126-00097

Authorization Type:

Non Common Carrier

Modification of License

Grant Date: 04/09/2012 **Expiration Date:** 01/08/2025

ORB7109 ORB7109 250 2.4 ORBIT 7109

Max Gains(s):38.5 dBi @ 3.9500 GHz 41.0 dBi @ 6.4000 GHz

Maximum total input power at antenna flange (Watts) = 50.0

Maximum aggregate output EIRP for all carriers (dBW)57.99

Oceans Seatel9797 250 2.4 Seatel 9797 0.0 0.0 AGL/ 0.0 AMSL

Max Gains(s):38.5 dBi @ 4.0000 GHz 41.3 dBi @ 6.0400 GHz

Maximum total input power at antenna flange (Watts) = 37.15

Maximum aggregate output EIRP for all carriers (dBW)57.0

F) Remote Control

Oceans	4400 S. Sam Houston Pkwy. E. Houston, Harris, TX, 77048 832-668-2753	Call Sign:	E030170
ORB7108	4400 S. SAM HOUSTON PKWY E. HOUSTON, HARRIS, TX, 77048 832-668-2753	Call Sign:	
ORB7109	4400 S. SAM HOUSTON PKWY E. HOUSTON, HARRIS, TX, 77048 832-668-2753	Call Sign:	

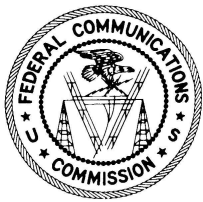
G) Antenna Structure marking and lighting requirements:

None unless otherwise specified under Special and General Provisions

H) Special and General Provisions

A) This RADIO STATION AUTHORIZATION is granted subject to the following special provisions and general conditions:

- | | |
|------|--|
| 105 | Subject to Rule Making: This license is subject to the outcome of any future rule making concerning ESV operations. Grant of this authorization shall not prejudice the outcome of any rulemaking. |
| 1010 | Applicable to all receiving frequency bands. Emission designator indicates the maximum bandwidth of received signal at associated station(s). Maximum EIRP and maximum EIRP density are not applicable to receive operations. |
| 1900 | Applicable to all transmitting frequency bands. Authority is granted to transmit any number of RF carriers with the specified parameters on any discrete frequencies within associated band in accordance with the other terms and conditions of this authorization, subject to any additional limitations that may be required to avoid unacceptable levels of inter-satellite interference. |
| 2916 | Transmitter(s) must be turned off during antenna maintenance to ensure compliance with the FCC-specified safety guidelines for human exposure to radiofrequency radiation in the region between the antenna feed and the reflector. Appropriate measures must also be taken to restrict access to other regions in which the earth station's power flux density levels exceed the specified guidelines. |
| 2938 | Upon completion of construction, each licensee must file with the Commission a certification including the following information: name of the licensee, file number of the application, call sign of the antenna, date of the license and certification that the facility as authorized has been completed, that each antenna facility has been tested and is within 2 dB of the pattern specified in Section 25.209 and that the station is operational including the date of commencement of service and will remain operational during the license period unless the license is submitted for cancellation. |



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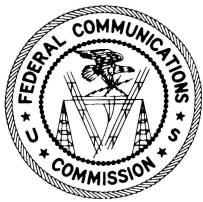
Name: HARRIS CAPROCK COMMUNICATIONS, INC.

Call Sign: E090176
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H) Special and General Provisions

5216 All operations shall be on a non-common carrier basis.



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H) Special and General Provisions

B) This RADIO STATION AUTHORIZATION is granted subject to the additional conditions specified below:

This authorization is issued on the grantee's representation that the statements contained in the application are true and that the undertakings described will be carried out in good faith.

This authorization shall not be construed in any manner as a finding by the Commission on the question of marking or lighting of the antenna system should future conditions require. The grantee expressly agrees to install such marking or lighting as the Commission may require under the provisions of Section 303(q) of the Communications Act. 47 U.S.C. § 303(q).

Neither this authorization nor the right granted by this authorization shall be assigned or otherwise transferred to any person, firm, company or corporation without the written consent of the Commission. This authorization is subject to the right of use or control by the government of the United States conferred by Section 706 of the Communications Act. 47 U.S.C. § 706. Operation of this station is governed by Part 25 of the Commission's Rules. 47 C.F.R. Part 25.

This authorization shall not vest in the licensee any right to operate this station nor any right in the use of the designated frequencies beyond the term of this license, nor in any other manner than authorized herein.

This authorization is issued on the grantee's representation that the station is in compliance with environmental requirements set forth in Section 1.1307 of the Commission's Rules. 47 C.F.R. § 1.1307.

This authorization is issued on the grantee's representation that the station is in compliance with the Federal Aviation Administration (FAA) requirements as set forth in Section 17.4 of the Commission's Rules. 47 C.F.R. § 17.4.

The following condition applies when this authorization permits construction of or modifies the construction permit of a radio station.

This authorization shall be automatically forfeited if the station does not meet each required construction deadline by the required date of completion unless, before such date(s), a specific application is timely filed to request an extension of the construction deadline(s), supported with good cause why that failure to construct by the required date was due to factors not under control of the grantee.

Licensees are required to pay annual regulatory fees related to this authorization. The requirement to collect annual regulatory fees from regulates is contained in Public Law 103-66, "The Omnibus Budget Reconciliation Act of 1993". These regulatory fees, which are likely to change each fiscal year, are used to offset costs associated with the Commission's enforcement, public service, international and policy and rulemaking activities. The Commission issues a Report and Order each year, setting the new regulatory fee rates. Receive only earth stations are exempt from payment of regulatory fees.